Final Technical Specification for Step 1 Federated DCB and TT management

Document information	
Project Title	Enhanced DCB
Project Number	13.02.03
Project Manager	EUROCONTROL
Deliverable Name	Final Technical Specification for Step 1 Federated DCB and TT management
Deliverable ID	D353
Edition	00.02.01
Template Version	03.00.00
Task contributors	
AENA; Indra; ECTRL; DSNA; MUAC; DFS; ENAV; NATS	

Abstract

This document is the final Technical Specification (TS) primarily for systems inside the Demand and capacity Balancing Functional Block. It addresses the systems required to ensure the support for Demand and Capacity Balancing in short-term planning phases. It covers network, sub-regional and local levels, although the deployment at local level depends on the specific local needs and may not consist of the complete suite of capabilities.
This combined version includes requirements for SESAR Solutions #17 (Advanced STAM), SESAR Solutions #18 (CTOT and TTA) and SESAR Solutions #20:
- all relevant requirements produced for previous exercises (EXE 13.02.03-VP-314, EXE 13.02.03-VP-522 and EXE 13.02.03-VP-632) that have not been subsequently superseded.
- the requirements for the "Local STAM", Performance and Weather (EXE 13.02.03-VP-700).
- target time management and AOP-NOP integration (EXE 13.02.03-VP-749).
These requirements have been consolidated in this final TS with all the information obtained during the validation process.
As such, this TS provides complete coverage of all related SESAR Step1 requirements.

Authoring & Approval

Prepared By - *Authors of the document.*		
Name & Company	Position & Title	Date
[redacted] Indra	[redacted]	3/08/2014
[redacted] ECTRL		15/09/2016

Reviewed By - *Reviewers internal to the project.*		
Name & Company	Position & Title	Date
[redacted] ECTRL	[redacted]	13/06/2016
[redacted] ECTRL		06/06/2016
[redacted] ECTRL		13/06/2016
[redacted] ECTRL		06/06/2016
[redacted] ECTRL		06/06/2016
[redacted] ECTRL		06/06/2016
[redacted] ECTRL		13/06/2016
[redacted] ECTRL		06/06/2016
[redacted] NATS		06/06/2016
[redacted] NATS		06/06/2016
[redacted] ECTRL		06/06/2016
[redacted] NATS		06/06/2016
[redacted] AENA		06/06/2016
[redacted] DFS		06/06/2016
[redacted] DSNA		06/06/2016
[redacted] ENAV		06/06/2016
[redacted] Indra		06/06/2016
[redacted] NATS		06/06/2016
[redacted] LEONARDO UK		06/06/2016
[redacted] Indra		06/06/2016

Reviewed By – *Other SESAR projects, Airspace Users, staff association, military, Industrial Support, other organisations.*		
Name & Company	Position & Title	Date
[redacted] Indra	[redacted]	06/06/2016
[redacted] Thales		06/06/2016
[redacted] EUROCONTROL		13/06/2016
[redacted] DSNA		06/06/2016
[redacted] Eurocontrol		06/06/2016
[redacted] ENAV (Sicta)		06/06/2016
[redacted] AENA		06/06/2016

[redacted] Thales	[redacted]	06/06/2016
[redacted] MET Office		06/06/2016
[redacted] EUROCONTROL		13/06/2016

5

Approved for submission to the SJU By – *Representatives of the company involved in the project.*		
Name & Company	Position & Title	Date
[redacted] EUROCONTROL	[redacted]	16/06/2016
[redacted] /EUROCONTROL		16/06/2016
[redacted] ENAIRE		20/06/2016
[redacted] DFS		16/06/2016
[redacted] DSNA		16/06/2016
[redacted] ENAV		16/06/2016
[redacted] Indra		16/06/2016
[redacted] / NATS		17/06/2016
[redacted] / LEONARDO UK		16/06/2016

6

Rejected By – *Representatives of the company involved in the project.*		
Name & Company	Position & Title	Date
<Name / Company>	<Position / Title>	<DD/MM/YYYY>

7

Rational for rejection
None.

8

Document History

Edition	Date	Status	Author	Justification
00.00.01	06/10/2014	Draft	[redacted]	New Document
00.00.02	08/10/2014	Draft		Indra internal review
00.00.03	30/10/2014	Revised draft		Updated version including received comments.
00.00.04	01/04/2015			Additional document structure and B2B section added.
00.00.05	24/04/2015	Consolidated Draft		All sections integrated
00.00.06	13/05/2015	Draft		Internally reviewed and updated Walked through at VP700 coordination meeting
00.00.07	01/06/2015	For Approval		Updated with review comments
00.01.00	16/06/2015	Final		Approved version (Title corrected after SJU assessment)
00.01.01	08/06/2016	Draft		New final consolidated version

00.01.02	16/06/2016	For Approval	[redacted]	Updated with review comments
00.02.00	23/06/2016	Final		Approved version
00.02.01	15/09/2016	Revised Final		Updated with SJU Feedback comments

9 # Intellectual Property Rights (foreground)

10 This deliverable consists of SJU foreground.

Table of Contents

108

List of tables

List of figures

Executive summary

This document establishes the final Technical Specification (TS) and Initial System Definition, describing the requirements needed for the implementation of validated requirements derived mainly VP700 and VP749. These build upon the requirements for VP-314, VP-522 and VP-632 which are part of SESAR Solutions #17 (Advanced STAM) and SESAR Solutions #18 (CTOT and TTA):

- Local STAM and Regional level support tools in Step 1 V3 associated with Demand and Capacity Balancing Functional Block. Section 2.1 defines the References STAM implementation (derived from VP314 and enhanced in VP522) and section 3.3 the Local Tools related to VP700
- STAM measures based on Target Times (described in section 3.2 and derived from VP-632 and enhanced in VP749)
- MET-NOP (described in section 3.4 and related to VP700)
- Network Performance Monitoring (described in section 3.5 related to VP700)
- AOP-NOP Integration (described in section 3.5 and derived from VP749).

Being the final Technical Specification (TS), it has been consolidated with all previously written technical requirements that are still relevant and updated after the various validation exercises.

It is defined in the context of Step 1 V3 of the SESAR Validation and Verification (V&V) Storyboard.

The requirements defined in this document for Local STAM and Regional level are compliant with the operational requirements related with Demand and Capacity Balancing in the P13.02.03 OSED [9] SPR [10] and INTEROP documents.

The requirements defined in this document for MET-NOP, Network Performance Monitoring and AOP-NOP Integration are compliant with 07.06.01 OSED[15].

For the more general Demand and Capacity Balancing technical requirements, a common reference implementation is defined to support SESAR Solutions #17 (Advanced STAM).

Within SESAR Solutions #17 (Advanced STAM) for the local tool to be used in VP700 and VP749, it has been agreed that, from the local point of view, this TS defines a whole set of requirements for an ideal local system, but each can implement them depending on the specific local needs and may not cover the complete set of requirements.

These requirements are supplemented by the MET-NOP, Network Performance Monitoring and AOP-NOP Integration requirements that were developed and validated in Exercise VP749 to support SESAR Solutions #20.

Note that the Target Times requirements (that form part of SESAR Solutions #18 (CTOT and TTA)) were developed in VP749 within the context of STAM as another Local Tool.

The document is organized around these major themes:

- Reference Implementation (Common Generic requirements)
- Local tools
- Target Time
- NM framework (B2B interfaces) – for integration of local tools
- Performance
- Weather, and AOP

1 Introduction

Demand Capacity Balancing (DCB) today and in SESAR storyboard step 1 takes place up to two hours before take-off, and it is coordinated by the centralised Computer Aided Slot Allocation (CASA) system. Often, the end time of Dynamic DCB (dDCB) can stretch up to 20 minutes before a flight enters the overloaded airspace and it is decentralised. In step 1, the dDCB mechanism being studied is Short Term Air Traffic Flow and Capacity Management Measures (STAM), but it may extend to beyond the resolution of the hotspot.

Flow management positions (FMP), use STAM to solve short time scale problems affecting a limited number of aircraft at a location, such as a short traffic overload in one sector. STAM is a complement to CASA DCB, which is more appropriate for overloads of extended duration or wider geographic scope, and it also intends to replace CASA regulations where it is feasible.

This document aims to describe requirements for the sub-systems deployed at local and regional level for supporting FMP on applying STAM measures to solve demand/capacity imbalance in their Area of Responsibility.

The coordination and implementation of STAM measure takes place by means of a communication framework available for the FMPs involved in the STAM process. This framework will be provided by the NM by a set of B2B services at network level that expose existing functionality as already used for VP522. These existing requirements are briefly introduced in this document, but described in more detail in the TS D350 Federates DCB Step1 Release 4 [11]. The B2B services are detailed in full as implemented.

The Weather subsystem (WxSS) aims to support all actors in the identification of situations and the evaluation of measures to manage the weather impact.

Network Performance is introduced to ensure conformance with the targets set in the NM Performance Plan. If deviations from performance targets are detected, corrective action can implemented accordingly.

Finally, an integration of Airport and Network especially covering the arrival (API) and departure (extendedDPI) planning information in an extended horizon. The 4D flight profile models in NM will be enhanced/re-calculated upon receipt of the flight specific API and DPI. The ELDT resulting from the flight profile calculation is of particular interest for AOP. The AOP will use this ELDT to calculate departure times of the next legs and APOC to monitor its planned operations, assess possible DCB imbalance and knock-on- effects

1.1 Purpose of the document

This document describes the technical requirements of the sub-systems to be developed for the Demand and Capacity Balancing system.

This information will serve as a reference point for system design and development based on various exercises/prototype activities, verified by P13.02.03 (Technical view) and validated P07.06.05 (Dynamic DCB, currently merged with the P13.02.03) and P04.07.01 (Complexity Management in En-Route) in the context of Step 1 SESAR V&V Roadmap.

These requirements describe functional and capabilities specifications covering performance, safe/security and reliability characteristics under which the functional block has to perform.

The relationship between this technical specification document and other SESAR deliverables is illustrated in Figure 1.

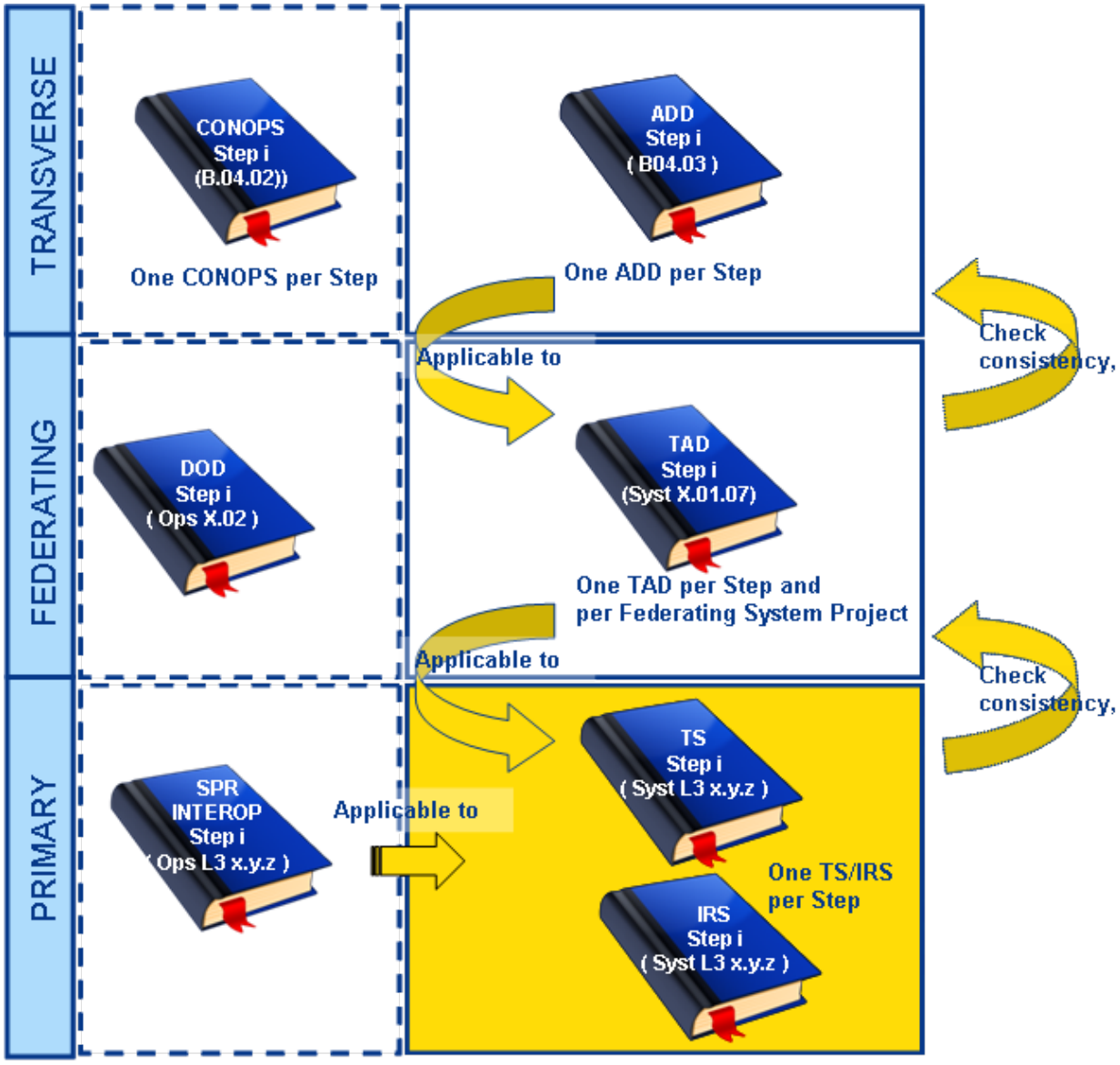


Figure 1: TS document with regards to the other SESAR deliverables

1.2 Intended readership

This document is intended for the following audience:

- Operational project P04.07.01 (Complexity Management in En Route) and 13.2.3 operational team as the source of the operational requirements.
- WPB4.3 as the SESAR Technical Architect.
- P07.02 (Co-ordination and Consolidation of Concept Definition and Validation) for maintaining the functional block and to contribute to the definition of the architecture.
- WP8 and WP14
- OFA05.01.01 (for AOP-NOP integration and TTA management aspects)
- P10.02.01 for Complexity Management
- P11.02 For Meteo

1.3 Inputs from other projects

Project 04.07.01 is identified as the source of operational requirements related to Complexity Assessment and Resolution in which the technical requirements are based.

Project 07.02-D42-Step_1_TAD [8] will be the input to allocate requirements in the corresponding functional Block (FB-2.05 Demand and Capacity Balancing).

1.4 Structure of the document

This document has the following structure based in the SJU TS template [7]:

Chapter 1: Introduction.

Chapter 2: General Functional Block Description

Chapter 3: Functional Block Functional and non-Functional Requirements

Chapter 4: Assumptions

Chapter 5: Referenced documents

Where appropriate, the sections are further subdivided into:

- Reference Implementation (Common Generic requirements)
- Local tools
- Target Time
- NM framework (B2B interfaces) – for integration of local tools
- Performance
- Weather, and
- AOP-NOP

1.5 Requirements Definitions – General Guidance

Requirements have been developed according to the Requirements and V&V Guidelines [2].

In order to facilitate importing of the requirements in a DOORS data base it has been used the toolbox delivered by the IS that provides the following layout described in [3].

The requirement Identifier tries to follow the structure proposed by the SJU Guidelines, therefore many have the following structure:

<Object type>-<Project code>-<Document code>-<Reference code>.<Reference number>

The four alphanumeric characters of the Reference code will be the deliverable code. D352 in the present case.

The four digits (abcd) of the <Reference number> field are structured inside this project as follows:

a (first digit) represents the requirement type – according to the SJU TS template sections - (1 for functional/capability requirement, 2 for adaptability requirements, 3 for performance requirements, 4 for safety & security requirements, 5 for maintainability requirements, 6 for reliability requirements, 7 for component internal data requirements, 8 for design and construction requirements and 9 for component interface requirements).

b (second digit) represents the subtype requirement when needed. If there are no subtypes requirements it will be set to 0

dc (third and fourth digits) will be the requirement number.

This structure will prevent having duplicated identifiers in the different P13.02.03 project TS documents.

1.6 Functional block Purpose

This technical specification is centred on the Demand and Capacity Balancing Functional Block, whose purpose is to support the user in the assessment of air traffic complexity and the resolution of imbalanced traffic situations. It provides the user a foreseen view of the air traffic situation, often using indicators of workload and complexity values along the specified time horizon.

Furthermore, the FB enables the user to know beforehand imbalanced and overloaded air traffic situations, and helps on selecting needed measures to adapt the ATC capacity and the foreseen demand.

For local tools, it provides the user with a sectorisation optimizer to propose optimal airspace sector configurations based on defined constraints and criteria to balance the ATC capacity with the foreseen traffic demand.

For Target Time based operations, it provides tools for the sequencing and time-shifting of flights.

Moreover, it supports the user on assessing the impact of the selected measures by means of what-if functionalities and it provides the user with the means to coordinate and implement the selected measure (STAM measure) in order to solve the defined imbalanced air traffic situation (hotspot).

1.7 Functional block Overview

The ATFCM domain system architecture comprises the following high-level functional blocks:

- Cooperative Capacity Planning
- Cooperative Scenario Planning
- Demand and Capacity Balancing
- Performance Measurements and Monitoring
- Post-OPS Analysis
- Traffic Demand Management
- Network Operations Plan Management

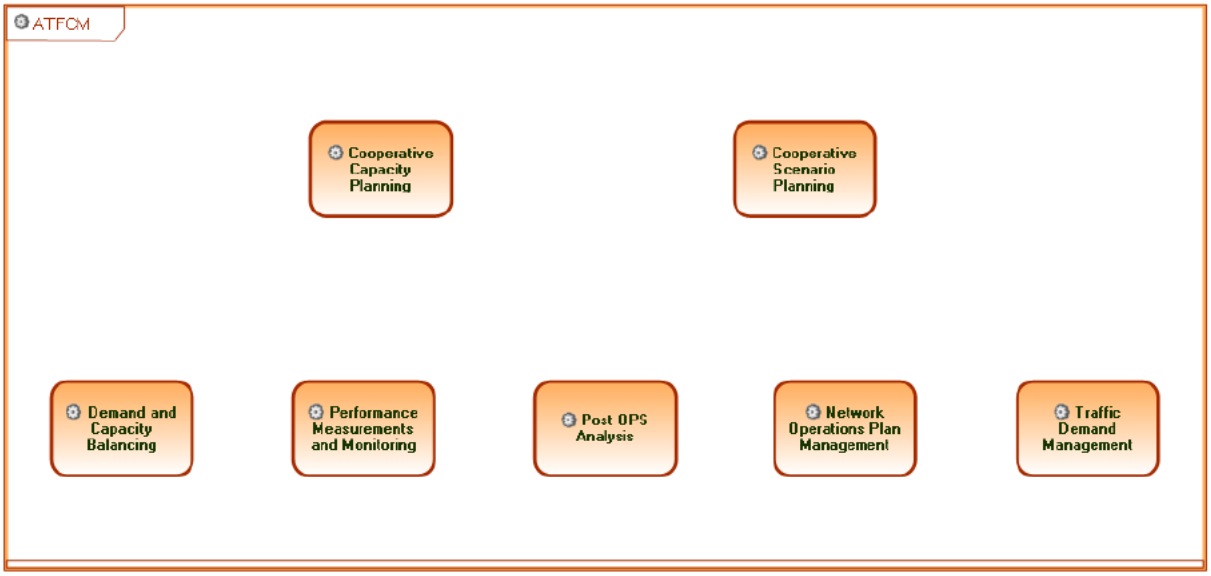


Figure 2: Domain System ATFCM

This Technical Specification document deals with the functionality defined in the Demand and Capacity Balancing Functional Block and defines the requirements that were needed for the development of the sub-system required for those operational functionalities.

This Functional Block groups all functions related to Demand and capacity balancing in short-term planning phases. It covers the regional and local levels, a DCB measure or a regulation being decided at local levels and its impact being analysed at Regional level. It should be noted that the configuration of the capabilities deployed locally, for local DCB, are dependent on the specific local needs and may not consist of the complete suite of capabilities outlined below.

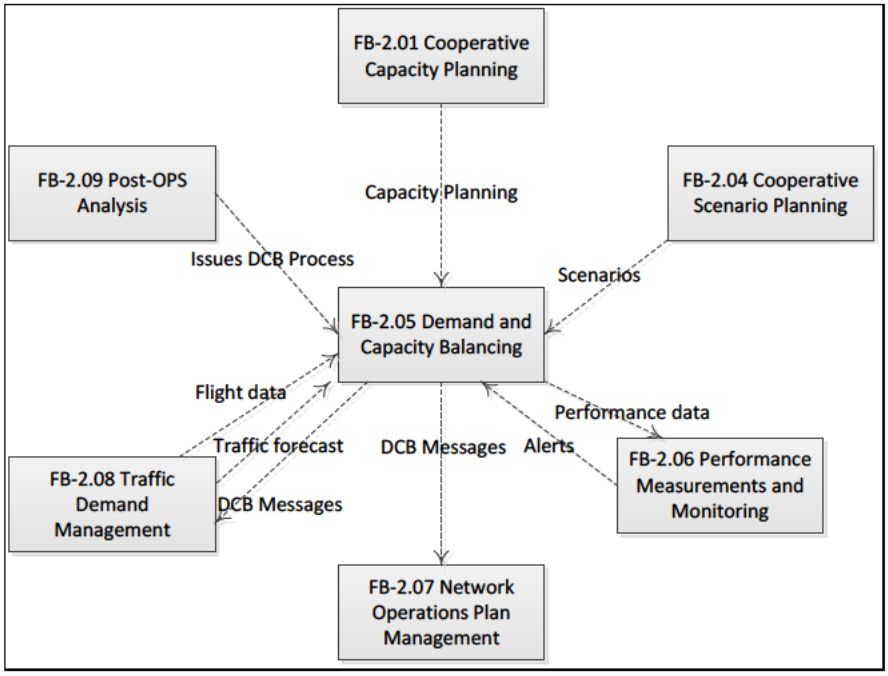


Figure 3: Functional block diagram

The FB supports its actors as they seek to deploy their resources in the most efficient manner in order to operate within context of safety and business performance regulation. Locally, for ANSPs, as the time of operation approaches, the DCB FB has a direct impact on controller workload and hence the elements of the FB are safety related.

The FB supports SESAR performance targets [8] in the areas of:

- Capacity
- Cost-Efficiency
- Efficiency
- Flexibility
- Predictability
- Environmental Sustainability
- Safety (tactical time frame)

The “Demand and capacity balancing” FB groups only the functions in the short term planning phase, the time horizon varies from few hours (generally 2 hours) until just before the before the time of operation. The short term changes considered by the FB include trajectory update, capacity change due to sector configuration modification, meteorological hazards and airspace management decisions. The need is for timely and accurate information updates, which includes the use of surveillance information.

The goal is to protect a sector (sector controllers), a TMA or even an airport from being overloaded. Three means for such demand & capacity balancing are in operation today:

1. Adjusting capacity using previously planned scenarios, for example a sector opening scheme.
2. Hotspots or sudden capacity opportunity can be detected and ASM/ATFM measures can be applied: such measures can come from already prepared scenarios or can be decided on an ad-hoc basis through a CDM process.
3. If the risk of an over-delivery cannot be mitigated by other means, NM and/or FMP can raise a regulation and allocate an ATFCM slot on flights subject to the regulation

Warning: the term “demand and capacity balancing” is also often used in the ATM literature as a generic term: for instance one of the objectives of the elaboration of a strategic capacity plan or a scenario is to balance the demand and the capacity. Such a generic use of this term shall not be confused with the particular definition of the “Demand & Capacity balancing” FB as given here.

Among the functions covered by the “Demand & Capacity balancing FB”, are:

- ATFM regulation management (publication/cancellation, regulation rate and its tolerance)
- ATFM slot monitoring (overloaded slot, slot exemption/exclusion, late filers/updaters), allocation (pre-allocation, allocation, blocked slot) and calculation (CTOT & CTO calculation, Sequence list, Most Penalising Regulation) through CASA algorithm
- Flight priority & departure slot swapping management: slot improvement, extension of tolerance window, slot swapping, prioritisation in case of diversion
- detection of hotspots based on OTMV (Occupancy Traffic Monitoring Values) or any other traffic-related value such as complexity (the measurements and monitoring of which are parts of the “Performance measurement & Monitoring” FB)
- monitoring of, long range, traffic situation

- presentation of specific views on combined network management and local data
- Ad-hoc ASM measure elaboration such as grouping/de-grouping sector, airspace opening, CDR activation, etc.
- Elaboration of ad-Hoc measures on traffic, either on a specific flight or a flow: flight level capping, re-routing, ground-delay, slot swapping, etc.
- Refinement of an already prepared scenario for its adaptation to the current situation
- Activation/de-activation of a scenario and/or an ad-hoc measure
- What-if tools to evaluate the impact of any solution in terms of performance improvement
- Exchange of information between local levels and between local and regional levels (through B2B, B2C, AFTN interfaces or any other means) to support all collaborative DCB functions mentioned above
- CDM processes for cooperative work (solution elaboration, impact assessment) between local levels (ACC, Airport, FOC/AMC) and between local and regional levels: among these CDM processes, one can mention UDPP (User-Driven Prioritization process), STAM (Short-term ATFCM measures process) and Dynamic DCB process, critical events management (e.g. CHAMAN, EVITA).

For further information about related functional blocks and their respective relations with technical blocks and connectivity capabilities, see “07.02-D42-Step_1_TAD” [8].

1.8 Glossary of terms

1.9 Acronyms and Terminology

Term	Definition
ADD	Architecture Definition Document
AOI	Area of interest
AOP	Airport
AMC	Airspace Management Cell
API	Arrival Messages
ATM	Air Traffic Management
CASA	Computer Assisted Slot Allocation
CDM	Collaborative decision making
CTO	Calculated Time Over
CTOT	Current Take-off time
DCB	Demand Capacity Balancing

Term	Definition
DOD	Detailed Operational Description
DPI	Departure Messages
E-ATMS	European Air Traffic Management System
EFD	Extended Flight Plan
FB	Functional Block
FPL	Flight Plan
FDP	Flight Data process
FMP	Flow Manager Position
FOC	Flight Operations Control
IRS	Interface Requirements Specification
INTEROP	Interoperability Requirements
MTCD	Medium Term Conflict Detection
NM	Network Manager
NOP	Network
OMTV	Monitored Traffic volumes
OSED	Operational Service and Environment Definition
SESAR	Single European Sky ATM Research Programme
SJU	SESAR Joint Undertaking (Agency of the European Commission)
SJU Work Programme	The programme which addresses all activities of the SESAR Joint Undertaking Agency.
SESAR Programme	The programme which defines the Research and Development activities and Projects for the SJU.
SPR	Safety and Performance Requirements
STAM	Short Term ATFCM Measure
TS	Technical Specification
TT	Target time
TTA	Target time of arrival
TTO	Target time over

Term	Definition
TAD	Technical Architecture Description
UDPP	User-Driven Prioritization process

386
387 Table 1: Acronyms table

2 General Functional block Description

2.1 General Functional block Description – Reference STAM Implementation

2.1.1 Context

In general terms:

- STAM are actions targeting specific, chosen flights that are deemed to be the most appropriate or beneficial for action in order to relieve a specific overload situation defined as a hotspot. This contrasts with a Regulation which is a mechanism on a place for a specified period of time which impacts all flights passing through the specified flow and which is based on entry counts and not on occupancy.

- The Flow Manager tries to resolve imbalances between the ATCO workload presented by the flights and the airspace capacity. Sustainable and Peak Occupancy represent the manageable and unmanageable workload equivalents for the ATCO. STAM is one tool he can use. If the imbalance is brief it is often called a Hotspot rather than an Overload which usually has a longer duration. Hotspots can often be solved by actions on a small number of flights, often one or two.

The local tools described later that place emphasis on various different aspects of demand capacity balancing. The reference STAM implementation is derived from VP-522 validation exercise and provides an implementation neutral description of common generic functionality.

Note that any incidental reference to implementation specific HMI elements derived from any historical prototype is purely to aid understanding. They are not intended to specify or constrain any final implementation.

2.1.2 Functional block Modes and States

Functional Block 2.05, Demand & Capacity Balancing covers all modes of demand capacity balancing, including adjusting capacity to match demand and adjusting demand to match capacity. The functional block can be considered as having different phases. DCB uses a prediction of demand and this prediction becomes more credible the shorter in the future it is made. Likewise the actions that can be taken vary with time.

Long in advance efforts will be made to deal with exceptionally large mismatches of demand and capacity. For example in summer 2012, the Olympic Games were held in London. An abnormally large number of flights were expected for this event and considerable preparation was made in the UK and surrounding areas to ensure adequate capacity would be available.

In current operations, planning of the normal DCB begins about a week ahead but has most activity the day before. Each day a plan for the next day is prepared. This lists regulations, sector opening schemes and similar.

On the day of operations the sector opening schemes are adjusted in relation to the traffic forecast a few hours ahead and in the range of 2 to 6 hours regulations are considered and if necessary applied.

Dynamic DCB is in the last two or three hours and concerns balancing made in the light of very credible load predictions.

The OSED from work package Project P13.02.03 describes Dynamic DCB.

2.1.3 Major Functional block Capabilities

Dynamic DCB involves the following capabilities:

- The demand / capacity display, analysis and alerting tools
- The flight selection tool
- The STAM editor
- The coordination tool
- The implementation tool
- DCB logic changes
- The dDCB Dashboard

The reference STAM implementation presented in this document corresponds only to a subset, as described later. They are nonetheless presented here to give the reader a full context in which to understand the requirements;

The above is a reasonable match for the use cases presented in the OSED. With reference to section 5.5 of the OSED:

UC1: Detection of Demand and Capacity Imbalance

UC2.a: Analysis and Preparation of the STAM Solution for Cherry-Picking Measures

UC2.b: Analysis and Preparation of the STAM Solution for Flow Measures

UC3: Coordination of the STAM Solution

UC4: Implement STAM Solution

OSED use case	Supporting reference implementation functional block	Technical use case
UC1: Detection of Demand and Capacity Imbalance	The demand / capacity display, analysis and alerting tools. **TLO**: Traffic Load Monitoring using Occupancy counts and thresholds for alerting purposes (OTMVs).	UC001: Define and monitor hotspot
UC2.a and UC2.b: Analysis and Preparation of the STAM Solution for Cherry-Picking Measures and for Flow Measures	The flight selection tool and the STAM editor **HM**: Hotspot Management (creation of hotspots based on use of OTMVs, management of hotspots using STAMs)	UC002: Elaborate STAM proposal and initiate collaboration
UC3: Coordination of the STAM Solution	The coordination tool **SC**: STAM Coordination (to resolve hotspots impacting particular flights)	UC003: Collaborate to the STAM measure and implementation process
UC4: Implement STAM Solution	The implementation tool and DCB logic changes	UC004: Monitor implementation of agreed STAM

Table 2: Mapping of subsystems to OSED use cases

The dDCB Dashboard is transversal and supports UC1 to UC4.

2.1.3.1 The demand / capacity display, analysis and alerting tools

Traffic demand is generally expressed for a pre-defined Traffic Volume as Entry Counts (flights per hour, for example) or Occupancy Counts. Demand is usually shown on the HMI as a bar graph with counts on the vertical axis and time on the horizontal. Existing DCB tools have features to show demand and the authors assume the reader is familiar with them. Demand is often shown with an indication of capacity or with monitoring values – horizontal lines on the bar graph of counts – the crossing of which can trigger alerts which will be shown in an overview display for so as to catch the attention of the flow manager.

The Flow Manager will be able to shade a region of an Occupancy Count graph and declare a "Hotspot", informing all interested. In this way the flow manager will monitor the demand, compare it to the capacity and will be motivated to take action at the appropriate time when the two differ significantly.

2.1.3.2 The flight selection tool

From a display of traffic demand or from other starting points the flow manager can obtain a list of flights. From this list the flow manager may select one or more flights for subsequent action, known as "cherry picking". Various aids to the cherry picking process described in the OSED, these are also generalised with the definition of sub-flows; the definitions of these sub-flows are also to be re-used in the demand/capacity display mentioned in section 2.3.1.

Hence from a flight list of flights captured by a hotspot, the flow manager should be able to filter "all north bound" or other geographic criteria, together with other selections like "all regulated flights", and so on.

2.1.3.3 The STAM editor

This subsystem will aid the flow manager to construct a STAM for a chosen flight. The flow manager will select various options from lists and then be able to add meaningful further options. For example the first choice might be between level-cap, reroute, ground delay and so on. If the option level-cap is chosen then the next option would be to choose from a list of levels.

2.1.3.4 The coordination tool

This tool allows the collaboration process to occur. The requirement expressed in the OSED is clearly an enhancement of the previous tools bringing closer integration and better support for communication.

2.1.3.5 The implementation tool

The implementation tool is an aid to be used by air traffic control or in an airline operations centre. It provides a reminder of things to be done such as change the level of a flight at an appropriate moment. The key feature of the tool is that the display only shows the essential information; hence the filtering of what is shown is crucial. Filtering will be based on who the viewer is or where the viewer is.

The information displayed will probably result from a semantic understanding of the STAM (see above section 2.3.3.) If the implementation tool is to display "exit level 210 from LFEE" then this must be known to the tool by some means.

2.1.3.6 DCB Logic updates

The logic of the existing DCB systems must be adapted to allow for Dynamic DCB to occur. One notable problem is how the existing DCB system should cope with a ground delay STAM, there are others. A non-exhaustive list follows

- "single flight regulation" to allow cherry picked delayed departure STAM
- For the future, the extraction of flights from regulations to allow them to be STAM'd instead

A second reason to implement these changes is to enable SAM and SRM to be sent for STAM actions, which will enable airport CDM mechanisms to respond correctly to the STAM.

2.1.3.7 The dDCB Dashboard

The dDCB Dashboard is an optimised Flow Manager Working Position.
The concept is to gather together all the information and features the flow manager needs and present them to him in an integrated, easy to use way. Key features of the proposed design are

- Time line – a display that shows how long remains before tasks must be completed
- Integration of all of the user-visible subsystems presented above.
- Display of cost and benefit for a STAM

Previously, a lot of information about a concept is referred to in the OSED. The reference STAM implementation provides support for this concept in various areas. However, unlike the other requirements, these requirements are transversal and hence not grouped in a single section.

2.1.4 User Characteristics

The OSED (in section 5.5, the use cases) mentions the following users:

User	Use case	Characteristics
[Local] FMP also called Flow Manager	UC1, UC2.a, UC2.b, UC3, UC4	FMP = Flow Management Position. Strictly speaking this is a place but the term is used to mean the person working at that place. Sometimes referred to as Local Flow Manager or simply Flow Manager. This person is in an ACC or in rare cases a Tower. He/she liaises with the other flow managers in the Network Manager and in other ACC and Towers. He she liaises with the ATC staff, typically via the supervisor or similar. The FMP typically is responsible for measures (regulations) on the traffic. In some use cases the terms Flow Manager, Local Capacity Manager and Local Traffic Manager seem to be either equivalent to or specialisations of FMP.
Sub-regional FMP	UC1	The Sub-regional FMP either replaces or coordinates with the Local FMP depending on the local configuration.
Adjacent FMP	UC3, UC4	FMP at a different ACC to that considered to be the Local FMP. The area of interest of that ACC is adjacent to the area of interest of the ACC at which the Local FMP works.
AO	UC3, UC4	Aircraft Operator. Sometimes called Airspace User.
AOLO	UC3	AOLO = Aircraft Operator Liaison Officer. This is a function inside the European Network Manager. The AOLO helps solve problems of aircraft operators stemming from regulations and informs aircraft operators of opportunities to avoid regulations or reduce overloads to avoid those regulations are needed.
Network Manager	UC3, UC4	Used in UC3 to mean the Flow Manager(s) in the operations room of the European Network Manager. Considered in UC3 as a flow manager with a larger geographic scope.

Table 3: Users and their characteristics

2.1.5 Operational Scenarios

The main operational scenario describes the resolution of 3 local imbalances facing 2 European airports and an en-route sector on the day of operations. For further details, please see:

514 **[1]** the 07.02-D27 Step 1 Release 3 Network Operations Detailed Operational Description (DOD)
515 section "Planning the Dynamic Demand Capacity balancing",

516 **[2]** the Project P13.02.03 Step 1 OSED, interim section 5.1 "Operational Scenarios (Non-severe
517 capacity shortfalls impacting multiple nodes of the network on short-term followed by capacity
518 recovery)" and 5.2 "Operational Scenario - Demand capacity imbalance impacting the En-
519 Route flow".

520 2.1.6 Functional

521 2.1.6.1 Functional analysis

522 The following table is an extraction of tables included in the 07.02 DOD defining the processes. It
523 concerns the related OI Step.

524

Diagram	Node	Process	Description
Dynamically Balance Network Capacity with Demand	Local/sub-regional Network Management	Detect Demand & Capacity imbalances	The Local Traffic Manager and/or the Flow Manager monitor the balance between demand and capacity in real time by analysing entry and occupancy counts and associated workload values, and comparing them respectively with situational traffic capacity values and occupancy traffic monitoring values.
	Local/sub-regional Network Management	Analyse imbalance	The Local Traffic Manager and/or the Flow Manager perform an analysis of different parameters to determine the nature of the hot spot in order to be in position to choose appropriate solutions if required.
	Local/sub-regional Network Management	Select appropriate dDCB measure	After having performed the imbalance analysis, the Local Traffic Manager and/or the Flow Manager identify the possible appropriate dDCB measure(s) to solve the problem.
	Local/sub-regional Network Management	Coordinate dDCB measure with partners	The Local Traffic Manager and/or the Flow Manager coordinate through a CDM process with concerned partners (other LTM/FM, AUs …) the dDCB measures to be implemented to solve the problem.
	Local/sub-regional Network Management	Implement dDCB measure	The Local Traffic Manager and/or the Flow Manager implement and promulgate the coordinated dDCB measure(s)

Diagram	Node	Process	Description
	Regional/sub-regional Network Management	Monitor the Network Effect	Following their implementation, ATFCM measures are monitored through relevant metrics and performance indicators to assess their efficiency and to check the retrieval of network stability.
	Local/sub-regional Network Management	Monitor the application of DCB/dDCB measures	Following their implementation, dDCB measures are monitored through relevant metrics and performance indicators to assess their efficiency.

For the purposes of this document, the technical breakdown follows the same structure.

2.1.6.2 Technical Use Cases

The scope here is broadly defined by the following technical level use cases (UC), that give a fuller context to the requirements found later in this document:

[3] UC001: Initiator FMP defines and monitors hotspot (maps to OSED Use Case UC1: Detection of Demand and Capacity Imbalance)

[4] UC002: Initiator FMP elaborates STAM proposal and initiate collaboration (maps to OSED Use Cases UC2.a: Analysis and Preparation of the STAM Solution for Cherry-picking Measures and UC2.b : Analysis and Preparation of the STAM Solution for Flow Measures)

[5] UC003: FMP, AO, Tower and NM collaborate to the STAM measure process (equivalent to OSED Use Case UC3: Coordination of the STAM Solution)

[6] UC004: Initiator FMP monitors implementation of agreed STAM measure by implementer (equivalent to OSED Use Case UC4: Implement STAM Solution)

Figure 4: UCP View – STAM Measure Promulgation

2.1.7 Service View

Information Exchange Requirements IER, Service Interface Specifications including the payload are described in the SDD , Service Technical Design in STDD see SVA 09 SDD, STDD and SCR in Chapter 5 References from [28] to [45].

2.2 General Functional block Description – Target Time

2.2.1 Context

TTO/TTA – target time of arrival (over) – is an artefact of a regulation. The system regulating the flight predicts the profile of the flight and tries to achieve the entry of the flight into the regulated area at the desired time by specifying (generally delaying) the take-off of the flight. The aircraft operator is normally informed of the calculated take of time (CTOT).

For regulations at airports, the initial sequencing can be provided by Airport Operations (AOP/AIMA) according to their needs. This is the case for the VP749 validation exercise.
Note that even though the technical requirements relate to regulations at airports, they may also be extended to en-route regulations.
In order to improve the effect of regulating the traffic through the regulated area, the expected time at the point of entry into the regulated area is normally shown to all concerned; referred to as the TTA at the regulated area.
As the situation may evolve during execution, the OSED recognises the need for a continuous re-assessment of the hotspot resolution and Target-Time progress. The Technical requirements include a process to allow Target Time revision after re-evaluation of the traffic situation

This is part of EATMA ATFCM system FB 2.05 Demand and Capacity Balance, and system Airport Operation Centre *FB* Airport Operations Plan Management

2.2.2 Functional block Modes and States

Target times are strongly linked to the DCB process as previously described. See 2.1.2.

2.2.3 Major Functional block Capabilities

As previously state, Dynamic DCB involves the following capabilities:

- The demand / capacity display, analysis and alerting tools
- The flight selection tool
- The STAM editor
- The coordination tool
- The implementation tool
- DCB logic changes
- The dDCB Dashboard

The above capabilities provide the framework for the use cases relating to Target Times, as presented in the OSED. With reference to section 5.5 of the OSED, the following Use Cases are addressed:

- UC7: Pre-Flight phase – Notify TTO in addition to the CTOT
- UC8: Flight phase – Facilitate adherence to TTO

2.2.4 User Characteristics

DCB will propose a new process with new roles and responsibilities for the local/sub-regional managers, network managers and AU:

- A significant role of FMP in identification of imbalances, selection and implementation of target times
- An involvement of the Airports/AOs integrated in the STAM negotiation based on target times
- A limited role for the Network Managers

- Network managers will provide a framework to allow FMP and AU to share information (Network View) and to coordinate (CDM) and prepare scenarios to be used at network level when necessary.
- Escalation to Network Managers upon request for investigation on alternatives and when the scale of the target time based STAM requires assessing the network impact with other STAM. In the context of the reference scenario the Network Manager should not be part of the work flow. A majority of the dDCB problems will be solved either internally within the ATSU or with limited coordination between neighbouring FMPs. Network Manager operations are reduced in term of staff. Once extended to the complete ECAC area a Network Manager involvement would be hardly feasible and too lengthy and complex.
- The Network Manager should only get involved in cross FAB boundary issues, in order to optimise/include the application of STAM at network level and preserve network stability and integrity.

2.2.5 Operational Scenarios

Please see:

- the 7.2 Step 1 DOD version 00.01.00 section “Planning the Dynamic Demand Capacity balancing” on page 65,
- the 7.6.5 Step 1 OSED, version 00.00.83 section 5.1 “Operational Scenarios (Non-severe capacity shortfalls impacting multiple nodes of the network on short-term followed by capacity recovery)” and 5.2 “Operational Scenarios (Demand capacity imbalance impacting the arrival flow of an aerodrome)”.

2.2.6 Functional

2.2.6.1 Functional analysis

See 2.1.6.1.

2.2.6.2 Technical Use Cases

The scope here is broadly defined by the following technical level use cases (UC), that give a fuller context to the requirements found later in this document:

[7] UC007: FMP sets target times for arrivals at airport

[8] UC008: FMP sets/updates target times for arrivals at airport as part of the revision process

These correlate to the Operational Use Case UC7: Pre-Flight phase – Notify TTO in addition to the CTOT and UC8: Flight phase – Facilitate adherence to TTO.

2.2.7 Service View

Information Exchange Requirements IER, Service Interface Specifications including the payload are described in the SDD , Service Technical Design in STDD see SVA 09 SDD, STDD and SCR in Chapter 5 References from [28] to [45].

2.3 General Functional block Description – Local Tools

2.3.1 Context

Note this section considers the Local Tools in the context of VP700. For complete coverage, AOP-NET integration, Target times, Statistics and MET at the network level also need to be considered. For convenience in documentation, these are separated out and can be found in separate sections below.

The local sub-system aims to support FMPs in identification of complex air traffic situations and the evaluation of STAM measures to reduce the complexity. It supports the user in keeping the declared ATC capacity and foreseen traffic demand balanced during the defined time horizon. The imbalance situation is usually brief, it is called a Hotspot rather than an Overload which usually has a longer duration, and can often be solved by actions on a small number of flights.

Main functions of the local sub-system are the following:

- Monitoring the situation (occupancy, entry rate, complexity and MET information).
- Hotspot definition and management at local level.
- STAM analysis and elaboration.
- STAM coordination.
- Monitoring the impact of the implemented STAM measure.

The local sub-system defined in this technical specification is based on the functionality of the previous B2C services implemented for the VP-522 validation exercise. The NM framework has been developed to provide B2B services for communication with the local tools and overall improvements made with augmented functionalities provided by the new local and existing network tools:

- Enhanced information accuracy by merging external and local information.
- Calculation of complexity based not only on occupancy and entry data but also on the controller workload
- Availability and use of meteorological information e.g. for use with complexity assessment.
- Use of military information and coordination
- Ease of use
- STAM measure coordination and communication with NM and involved actors by means of B2B services
- Monitoring and calculation of performances at both local and network level.

  This is part of EATMA ATFCM system FB 2.05 Demand and Capacity Balance, En route /Approach ATC system FB Local Traffic Complexity Management and En route /Approach ATC FB Operational Supervision

2.3.2 Functional block Modes and States

In order to tackle the Demand and Capacity Balancing of traffic situation and to support the user to solve imbalance traffic situations the local sub-system can be used in different modes depending on the functionality provided to the user.

In order to optimise the traffic situation in terms of the imbalance between capacity and demand, the sub-system can operate in different modes.

There are three main modes of operation that depend on the information available to the user via the HMI. These three modes are:

- Monitoring (Complexity Assessment):

  Monitoring is the principle mode of operations. Although the traffic is planned at regional level to avoid imbalance and permit optimal performance of the network by the Network Manager,

the traffic is monitored at short notice at the sub-regional level to assess and forecast the complexity and traffic density within the selected time horizon.

- Hotspot definition:

  The second mode of operations it triggered as the complexity or traffic density exceeds or approaches certain predefined levels. In this mode the sub-system will support the FMP to defining a hotspot and to declare it, when approved, to the network for impact analysis and co-ordination with the Network Manager. Should the situation improve as the hotspot is monitored, than the sub-system will de-activate the hotspot and return to the initial mode of operations.

- STAM process:

  When traffic situation identified by the hotspot is sufficiently reliable in terms of potential impact and effect, the sub-system enters in the STAM mode.
  In this mode the FMP assesses the traffic situation and uses available tools to try and improve the situation. These tools are, amongst others, what-if sector configuration and activation, what-if trajectory, what-if Short Term ATFCM Measure, etc. After evaluation of the outcome of the what-if solutions, the STAM is prepared in case the solution cannot be resolved by airspace reconfiguration alone.
  After preparing the STAM, the measure needs to be co-ordinated with the stake-holders for agreement on applying it. This is called Measure Collaborative Decision Making (M-CDM)
  Upon agreement by the stake-holders the initiator of the STAM continues to monitor the hotspot and the impact of the co-ordinated measure and implements the STAM to resolve the active hotspot. After resolving the situation, the sub-system reverts to initial mode of operations. In summary:

  - STAM Preparation:
    - During this process the FMP assesses the suitable STAM measure to apply for solving the imbalance situation. To select the best measure, The FMP uses different tools, among others, what-if trajectory and sectorisation tools and optimization sectorisation tools.
      At the end of this process the FMP selects the STAM measure to be applied and communicate it to the network.
  - STAM Coordination:
    - During this process the FMP proposes the STAM measure to the involved stakeholders and coordinate the agreement do applying that measure.
  - STAM Execution:
    - During this process the STAM measure is applied and the FMP monitors the impact of the measure in the air traffic.

2.3.3 Major Functional block Capabilities

The sub-systems shall be capable of supporting the objectives of this Functional Block. They shall contribute positively to the resolution of Demand and Capacity imbalances by adding functionalities at the sub-regional level as a sub-system within the ATC environment and enhancing existing network level tools.

The following diagram illustrates the functionalities of the sub-systems to perform the objectives of the functional block:

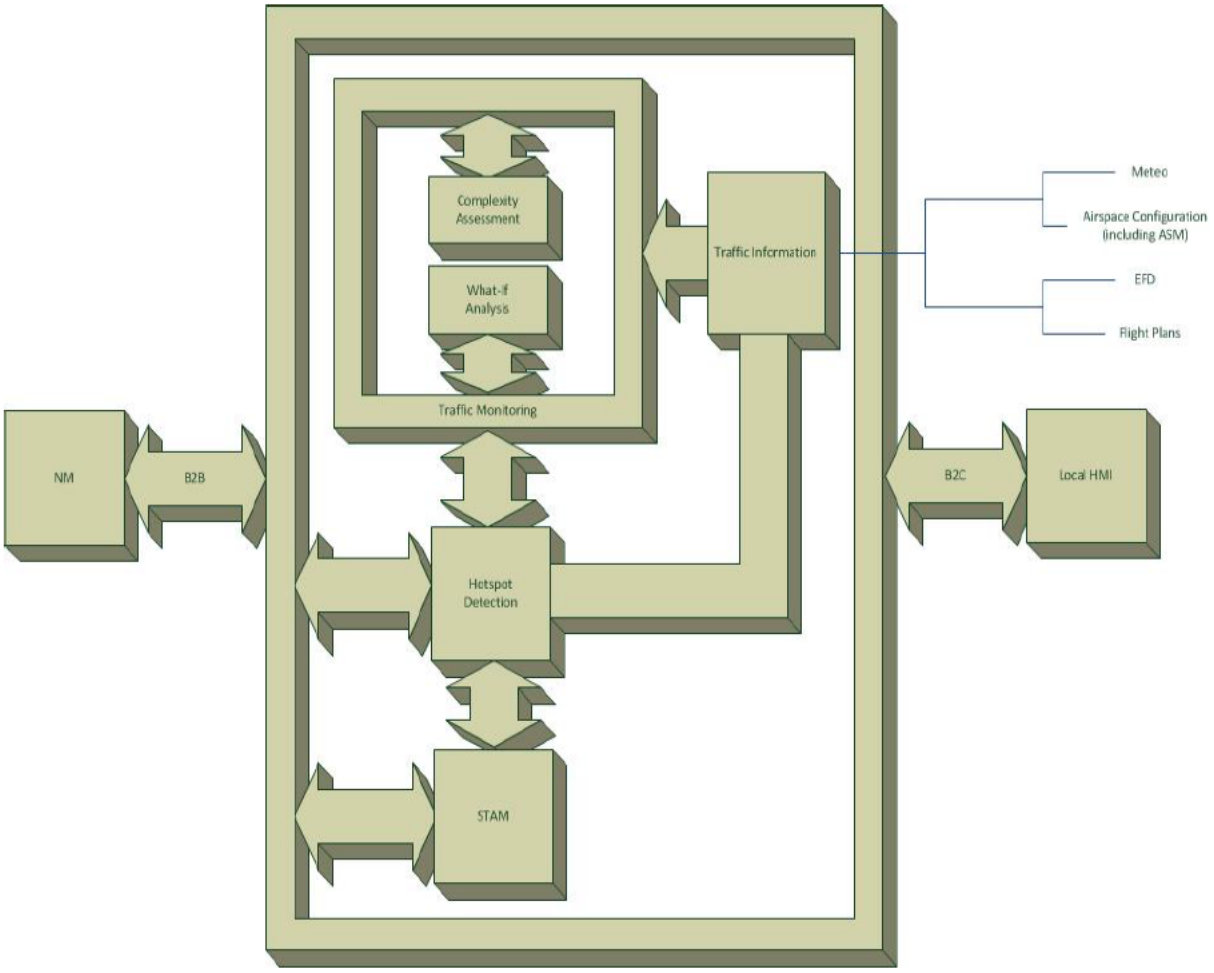


Figure 5: Major Capabilities

A brief description of the functionalities of the figure is following:

- Merge external data traffic information (FDP, EFD, Meteorological info, military areas):
  The local sub-system will get data coming from external sources and merge them in order to obtain a clear an accurate picture of the air traffic situation.

- Complexity assessment:
  The local sub-system will calculate, based on the received data and predefined procedures of the local environment, the complexity associated to the real situation.

- What-if Analysis:
  The local sub-system should provide what-if capabilities related with trajectories and sectorisations to support the FMP on the assessment during the elaboration and coordination of STAM measures.

- Optimization functionality:

The local sub-system should provide an optimization capability to calculate optimal sectorisation as a support to the FMP decision making for solving imbalance situation before elaborating and applying STAM measures.

- STAM measure management:
  The sub-systems should support the whole STAM measure process during each phase, i.e. hotspot detection, STAM elaboration, coordination and implementation. This capability includes external communication with NM and other stakeholders using the B2B framework.

- Local HMI:
  The HMI of the sub-system displays, in an appropriated manner, all the information that FMP needs to tackle the STAM processes.

2.3.4 User Characteristics

As it is described in the operational document OSED [9] the main intended users are the following:

- Flow Manager Position (FMP): Flow manager position uses the local tool to analyse the sectorisation plan to be set, in each ATC, over the operation day or considered shifts. FMP could also use the local tool to follow the defined procedure for the STAM assessment, coordination and implementation processes.

- ACC Supervisor: ACC supervisor will use the local tool to analyze and decide the sectorisation plan to be set and the STAM measure to be applied for an imbalanced situation, in each ATC, over the operation day or considered shifts.

- AU: Airspace users.

- Network manager: the Flow Manager/s in the operation room of the European Network Manager.

2.3.5 Operational Scenarios

The sub-systems described in this section will perform the Demand and Capacity Balancing as part of the operational scenario Demand capacity imbalance impacting the En-Route flow defined in OSED document [9] in the section 5.2.

The use cases that will apply to this operational scenario are also described in the OSED [9] in the section 5.5 (Process Description & Use cases) and will be the following:

- UC1: Detection of Demand and Capacity Imbalance

- UC2.a: Analysis and Preparation of the STAM Solution for Cherry-Picking Measures

- UC2.b: Analysis and Preparation of the STAM Solution for Flow Measures

- UC3: Coordination of the STAM Solution

- UC4: Implement STAM Solution.

2.3.6 Functional

2.3.6.1 Functional decomposition

The main functionality of the subsystems, as it was described in the section 2.3 is the support to FMP on Demand and Capacity Balancing and to solve imbalance situations elaborating and applying the suitable STAM measures.

To achieve those objectives different functionalities are developed in different modules that are connected in order to create sub-systems with the desirable modularity.

The sub-system functional decomposition is based in those functionalities/modules and it is shown in the following diagram:

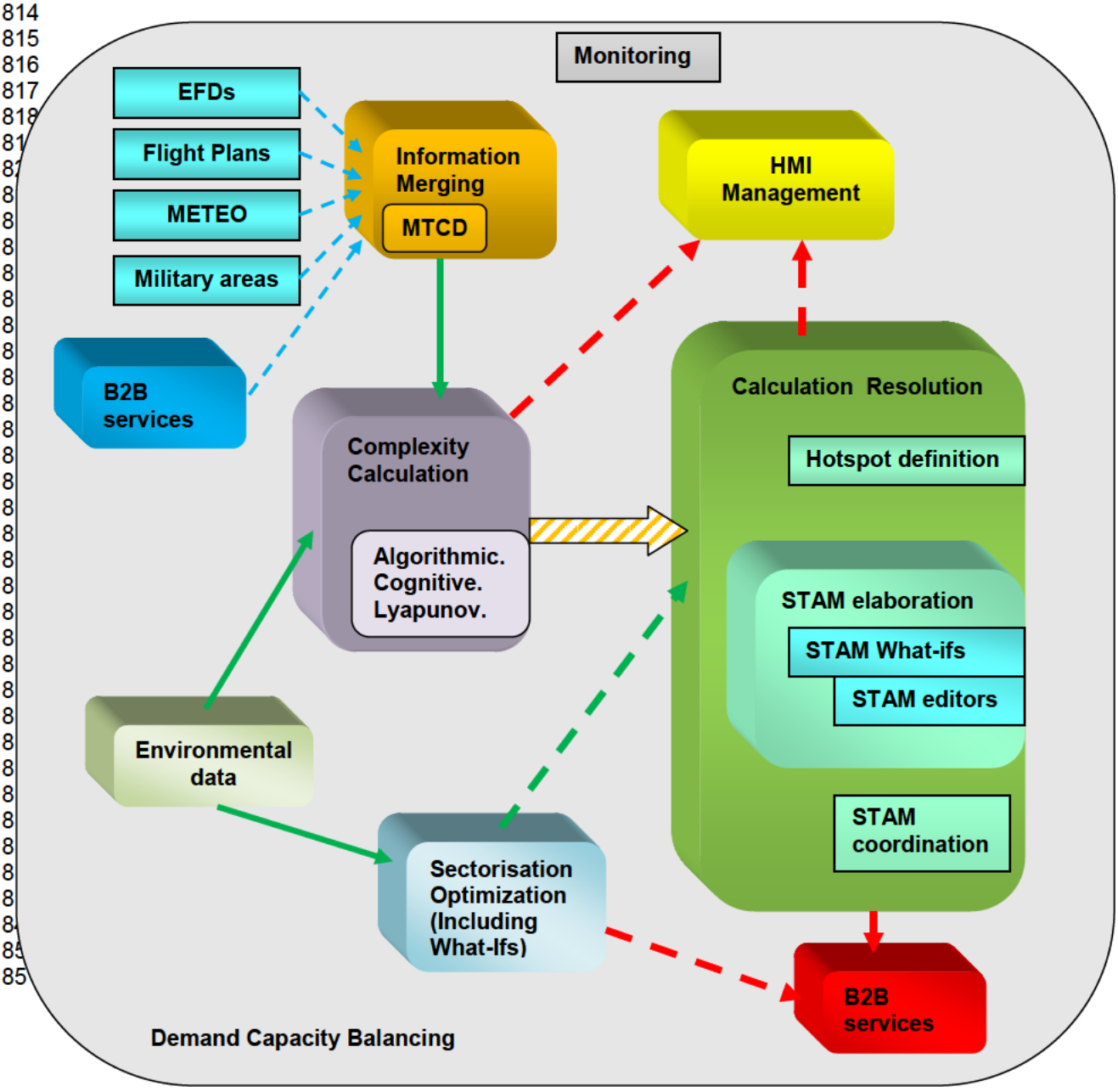


Figure 6: Functional decomposition

Detailed information of the functionalities depicted in the diagram is described in the next section.

2.3.6.2 Functional analysis

This section describes the functionalities presented in the functional decomposition section explain more in depth each function in the corresponding sub-section.

2.3.6.2.1 Information Merging

The Information Merging function is the first step on the Complexity Calculation and Resolution process and one of the most important due to the fact that the further processes results depend on the information supplied by this function, being the accuracy of this process one of the biggest challenges on the development of the system.
This function aims to merge all the available information coming for external or internal sources to create a coherent and accurate picture of the real air traffic situation.

The information that will be used in this local sub-system is defined below:

- EFD: Extended Flight Plan data coming from the NM.
- Flight Plan: Flight Plan Data and profiles coming from the NM are elaborated internally in the system.
- Meteorological: This information will come from external provider to get the most up-to-date weather information.
- Data for Complexity Analysis: Conflicts (MTCD) are calculated at local level and this information is used to predict and to assess the complexity of the air traffic situation.

The information resulting from the merge process is made available and provides an accurate picture of the air traffic situation.

2.3.6.2.2 Environmental data

This function provides the data related with the airspace environment of the Area of Interest.
The information managed by this function comprises:

- Airspace data including military data: The activation/deactivation of military areas is taking into account to calculate the available capacity in the AOI of any FMP.
- Capacity Data
- OMTVs
- Predefined Sector Configuration

This information is an input for the Complexity Calculation and Complexity Resolution functions

2.3.6.2.3 Complexity Calculation

The Complexity Calculation function assesses the air traffic complexity based on the external information about the predicted trajectories, predefined criteria related with the available resources and common procedures defined in the specific ATC.
The algorithms used for the complexity calculation can be different depending on the specific ATC environment, but usually three approaches are used:

- Algorithmic: The complexity is calculated based on the predicted trajectories, taking into account predefined characteristics and using a weighted deterministic formula.
- Cognitive: The complexity is calculated based on the predicted trajectories and the use of cognitive channels that simulate the human behaviour.
- Lyapunov: The complexity is based on Lyapunov studies.

The result calculation is the input for the Complexity Resolution and HMI Management functions.

2.3.6.2.4 Complexity Resolution

The complexity resolution function provides to the user a set of functions to support the user decision making on solving the imbalanced situations. Some functions use a graphical interface to allow the user to monitor the current situation and to elaborate the needed measures, other function proposes

solutions to the user (e.g. sectorisation optimization) and other function provides external communication with the NM and other involved actors using B2B services.

The functions that support the user on complexity resolution are:

- Monitoring & hotspot definition:
  This function displays the predicted complexity so that the user can create a hotspot if needed and then monitor the evolution of the traffic situation in the hotspot
- Sector optimization:
  This What-if function proposes optimal sectorisations to the user. These may help to solve an imbalance situation by modifying the sector configuration and avoiding the application of STAM measures.
- STAM elaboration:
  When STAM measures are deemed necessary, this function supports the user by helping to define and evaluate measures that could potentially solve hotspots. Some hotspots will only be monitored without any further action being required.
  The user can use two types of editors:
  - STAM measures editors to define the characteristics of the measure to apply.
  - What-if (trajectory/delay and sectorisation) editors to evaluate the impact of the selected measure.
- STAM coordination:
  This function allows the user to negotiate the proposal measure with NM and the rest of the involved actors, to propose alternative measures and to reach the final agreement on the measure to be implemented.
- External B2B communication via NM framework:
  This function provides the communication media to the actors and NM throughout the STAM processes to help solve any complex hotspots.

The information processed by the previous functions is sent to the HMI management function so that it will be available to the user.

2.3.6.2.5 HMI Management

This HMI Management function tackles with presentation of all relevant information to the user on the different sub-system modes and processes. Moreover it is the input source of the subsystem receiving the user reactions and commands.
HMI presents the user the following data:

- Complexity values of air traffic, including Occupancy, Entry rate
- Derived information such as Controller Workload over a time period.
- Hotspots information
- STAM measure information
- STAM coordination messages
- List of flight information.
- Application time of STAM measure applied to the flights.
- Tasks to be performed during the STAM processes.

User provides the system the following input data through the HMI:

- User commands
- What-if proposals (trajectory and sectorisation)
- Hotspot parameters.
- STAM measures parameters.
- STAM coordination messages and responses.
- Configuration parameters.

2.3.7 Service View

Information Exchange Requirements IER, Service Interface Specifications including the payload are described in the SDD , Service Technical Design in STDD see SVA 09 SDD, STDD and SCR in Chapter 5 References from [28] to [45].

2.4 General Functional block Description - Weather

2.4.1 Context

Significant weather conditions may have and important impact in the European ATM performance, affecting one or several local units.
This subsystem (Weather Subsystem – WxSS) aims to support all actors in the identification of situations and the evaluation of measures to manage the weather impact.
It supports the users in providing the local knowledge that supports having a common understanding and therefore evaluating and agreeing on the tactics to include in a weather plan during the defined time horizon.
The imbalance situation may not be stable and/or permanent as the weather information will be usually more accurate and refined as the forecast is closer to the target time.

Main functions of the significant weather sub-system are the following:

- Monitoring the weather forecast (significant weather at ANSPs/airports)
- Adding local knowledge (“risk assessment”) to the forecast
- Sharing the weather forecast and associated local knowledge
- Sharing the impact assessment
- Coordinate and agree on a shared response
- Share the agreed strategy
- Store the actual weather and its relation to the weather forecast and strategy.

The weather sub-system defined in this technical specification is based on the functionality and concept being analyzed by NM and its stakeholders at European level. It brings a stand-alone application that can be used in conjunction with other interfaces to bring a significant weather management concept into the ATM Operations.

It intends to provide augmented functionalities related with:

- Significant weather common awareness.
- Provision of weather related strategies at local level.
- Availability of meteorological information and consideration of constraints on the evaluation of measures suitability.
- Creation of a knowledge base for improved weather management procedures.

This is part of EATMA ATFCM system FB 2.07 Network Operations Plan Management and Consolidated global & regional MET Information on Wx state forecast and Consolidated global & regional MET Information on adverse Wx observation

2.4.2 Major Functional block Capabilities

The weather sub-system rely on a set of functionalities (capabilities) to achieve the objectives of the functional block(s), e.g. Weather Management and to support the user to consider the significant weather situation when proposing ATM measures at different time horizons.

The following diagram illustrates the functionalities of the weather sub-system to perform the objectives of the functional block(s):

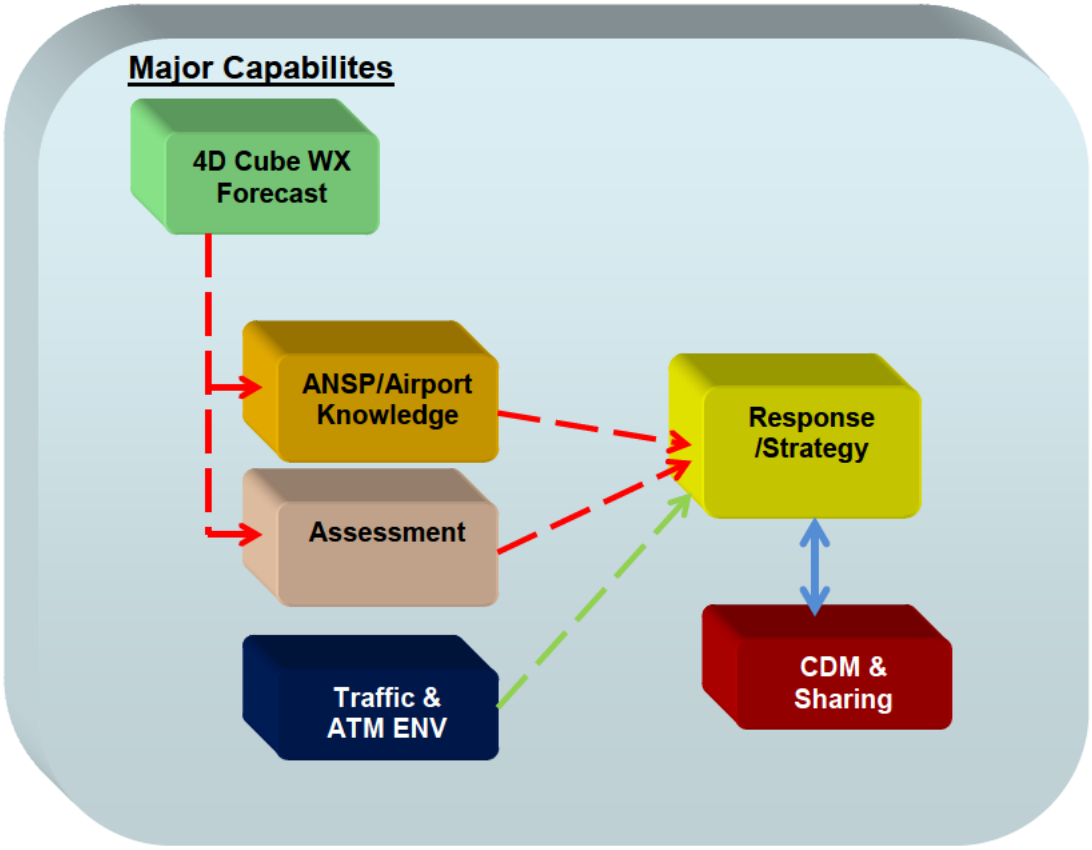


Figure 7: Major Capabilities

A brief description of the functionalities of the figure is following:

- Merge 4D Cube WX Forecast
  The sub-system will get data coming from external sources and merge them in order to obtain a common picture of the significant weather situation.
- ANSP/Airport Knowledge – Threat detection
  The sub-system will get data coming from ANSP/Airport and merge them in order to obtain an enhanced picture of the significant weather situation with local knowledge.
- Assessment
  The sub-system will assemble the data into a common picture of the significant weather risk evaluation.
- Response/Strategy
  The sub-system will assemble the data into a common picture of the responses/strategies (weather plan(s)).
- Access to additional data and tools
  The sub-system may access additional data and tools coming from external sources to support the building of the response/strategy common picture.

2.4.3 User Characteristics

The main intended users are the following:

- Flow Manager Position (FMP): Flow manager position uses the weather subsystem to see the overall Network weather picture, particularly in neighbouring areas and other areas of interest. FMP also provides further information on the assessment of the risk of the weather phenomena

in their area of responsibility. FMP could also use the tool to follow the defined procedure for the weather assessment, coordination and plan and execution processes.

- Airport Operator Position (APOC): Airport Operator position uses the weather subsystem to see the overall Network weather picture, particularly in other areas of interest. Airport Operator also provides further information on the assessment of the risk of the weather phenomena in their area of responsibility. Airport Operator could also use the tool to follow the defined procedure for the weather assessment, coordination and plan and execution processes.
- European Network manager: the European Network Manager position uses the weather subsystem to see the overall Network weather picture and to advice and support the defined procedure for the weather assessment, coordination and plan and execution processes as defined.
- AU: Airspace users use the weather subsystem to see the overall Network weather picture and extract the relevant information in order to make the necessary business decisions.

2.4.4 Operational Scenarios

The subsystem described in this chapter will support the following scenarios described in WP 7.6.1. OSED ref [15]

- SCN-NOP2.1000 Single Airport Weather Phenomena
- SCN-NOP2.2000 Single En-Route Weather Phenomena
- SCN-NOP3.0000 Multiple Weather Phenomena.

2.4.5 Functional

The following diagram shows the main functionality, to share common weather risk assessment information and the corresponding response plans by all European ATM Network actors.

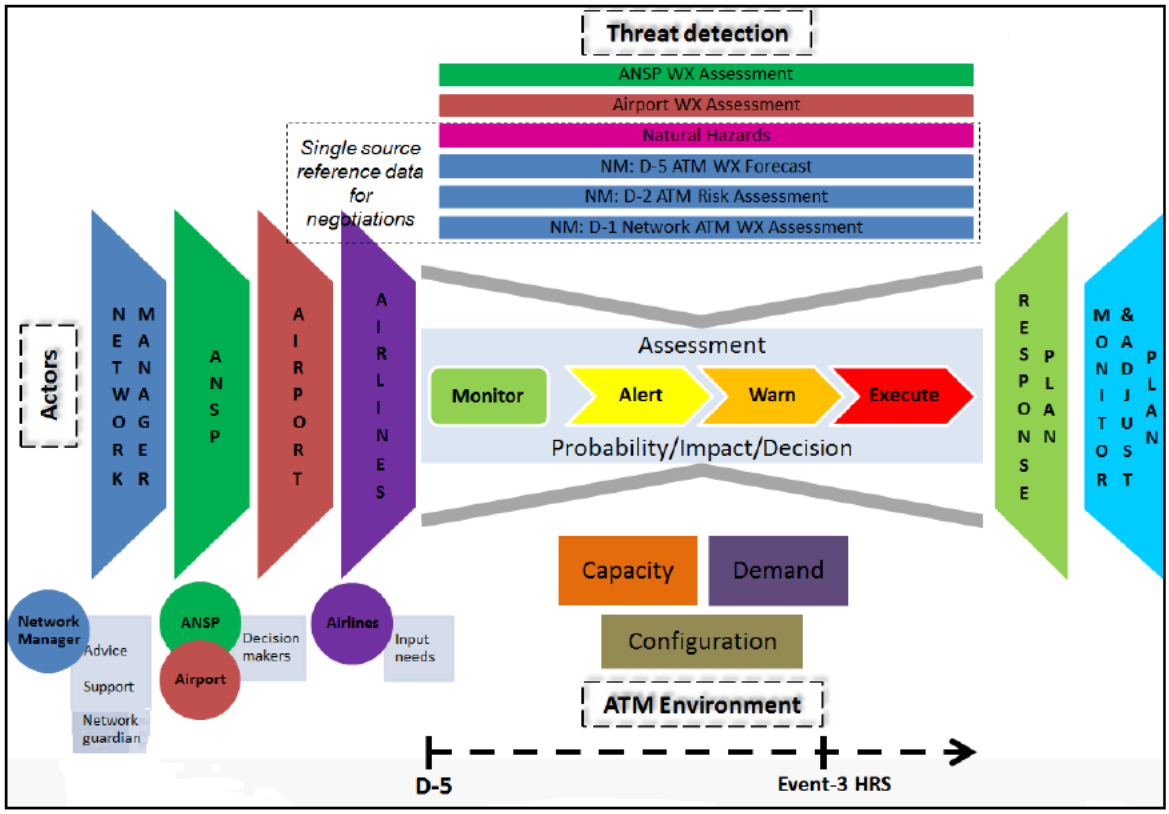


Figure 8: Significant Weather Planning

2.4.5.1.1 Assemble 4D WX Cube information

The 4D WX Cube Information assembling function is the first step.
Information is received via a B2B service in an agreed granularity, periodicity and format.
The information resulting from the assemble process is available for the further functions providing a common picture of the significant weather situation.

2.4.5.1.2 WX data update

The updates of 4D WX Cube Information received via a B2B service are available, providing always a common picture of the weather situation according to the latest received information.

2.4.5.1.3 Threat Identification and mapping display

The assemble process results in the provision of a weather situation display (graphical and textual) that identifies Airspaces where weather may pose a threat to the normal operations (i.e. operations performing at its best should not significant weather materialise).

2.4.5.1.4 Threat Assessment and Response to Threat

Depending on the phenomena, the time of the forecast versus the time that the threat will occur, the demand and the capacity, and any other local factors to be considered, the identified threat is assessed by local expert judgement and the result of the assessment is shared making it available for further functions.
The result of the assessment is either to monitor or alert the weather phenomena, waiting for confirmation in following(s) 4D WX Cube Information, or to warn, when there is locally expected an action.
The information resulting from the assessment process, including the responses agreed is available for further functions providing a common picture of the significant weather situation.
The weather situation display (graphical and textual) is enriched with this information.

2.4.5.1.5 Archiving – creation of repository of significant weather responses.

The weather threat assessment data in relation to a given threat that follows a given weather forecast in the 4D WX Cube information is recorded together with the ATM actions associated to it.
This information is enhanced with the weather nowcast and it is available for post OPS analysis of significant weather events in the Network.

2.4.5.2 HMI presents the user the following data:

The WxSS HMI presents the user the following data:

- Graphical display and textual display (“dossier”).
- Weather AoI information
- WS potential impaction and action information
- Time of forecast
- 4D WX Cube information
- Past similar events.

User provides the system the following input data through the HMI:

- User commands
- Risk assessment status (AoI created, monitored, alert, execution of action)
- Unit that identifies the area as AoI
- Potential impact and mitigation actions.

2.4.6 Service View

Information Exchange Requirements IER, Service Interface Specifications including the payload are described in SDD , Service Technical Design in STDD see SVA 10 SDD, STDD and SCR in Chapter 5 References from [20] to [27].

2.5 General Functional block Description – Network Performance Monitoring

2.5.1 Context

The context of this functional block is Network Performance Monitoring.

Network Performance is monitored by NMOC to allow to conform with the targets of the NM Performance Plan Deviations from performance targets are detected and corrective action are implemented accordingly.

This is part of EATMA ATFCM system Functional Block 2.06 Performance measurements and monitoring

The two FB 2.09 Post OPS Analysis and FB 2.07 Network Operations Plan Management are closely related and do overlap in certain areas.

The aim of this exercise is to exploit new KPIs that will assist the monitoring, supervision and analysis of the Network Situation.

The accent is on on-line monitoring although post-analysis is also addressed. The objectives of this validation related to Network Performance are:

1. to assess the operational use of a representative set of KPIs to assist network monitoring,
2. for better integration, easy navigation from Network top level KPIs to FMP level. i.e. by FMP/NM ratio values or subtotals, nr of flights affected by measure(s) , delay ratio etc…
3. to assess the usefulness of trend graphs, dispersion or load evolution graphs amongst others to display measurements and facilitate analysis of the evolution and comparison.

2.5.2 Major FB Capabilities

The two following existing capabilities will be improved:

Online ATM network situation and performance monitoring

> Support identifying and mitigating in coordination with local actors of significant DCB issues, which affect the network. Monitors the evolution of network performance and provides appropriate alerts and warnings;
>
> This capability will be improved by providing a set of on-line measurements and KPIs that better assist the monitoring, supervision and analysis of the Network Situation.

Post-analysis of network performance

> Run post-operations analysis integrating ATM stakeholders' views and actual recorded data. Provides regular reports on the overall performance of the network and the relation to the expected pan-European operational performance targets.
>
> This capability will be improved by recording during execution and subsequent extraction from data log of various data and measurements that better support the data analysis and scenarios benchmarking.

The requirements for the development of the new measurements are grouped as follows:

Predictability Measurements

Adherence Measurements

Load Status Evolution

2.5.3 User Characteristics

Following actors (participants) have been identified

Main
U1. NM For monitoring, supervision and coordination with all actors and subsequent actions
U2. Flow Manager (FMP) Flow manager positions use the local tool for STAM assessment of their local situation and for implementing actions in coordination with NMOC and AU. Impact on the network performance of STAM is hence analysed and discussed with NMOC.

Secondary
U3 Air Navigation Service Provider (ANSP)
U5. AO or CFSP
U5. Airports

2.5.4 Operational scenarios

The following two NOP scenarios apply:

SCN-NOP4.0000 Daily Plan Monitoring described in 07.06.01 OSED reference [15]

SCN-NOP4.0000 Daily Plan Monitoring and dDCB unbalance described in 07.06.01 OSED reference [15]

2.5.5 Functional

2.5.6 Service View

N/A

2.6 General Functional block Description – AOP-NOP

2.6.1 Context

The context of this functional block is the integration of AOP-NOP systems.

Today, the collaboration between Airports and Network exists but there it is not sufficient, it covers a limited set of data, is a discontinued data flow exchange and it is limited to a set of airports (CDM).

The proposed solution is a comprehensive integration of Airport and Network, covering all time phases, any relevant data supporting airport and network operations and with a rolling data exchange.

This is part of EATMA ATFCM system FB 2.07 Network Operations Plan Management and *FB* Airport Operations Plan Management

1199

1200 2.6.2 Major FB Capabilities

1201 Requirements can be grouped in the following categories:

1202 Traffic Demand Identification (AOP=>NOP)

1203 AOP will provide NOP updated traffic demand identification information for both arrivals and
1204 departures especially in the short and medium term planning phase looking ahead up to six days in
1205 advance and ending at the filing of the corresponding ICAO FPL or eFPL.

1206 Not to be validated as it does not fit in the validation timeframe of VP700 or VP749 that only covers D
1207 and D-1

1208 Airport Capacity and Event Planning Information (AOP=>NOP)

1209 1. Tactical Capacities updates exchange

1210 AOP will provide NOP with up-to-date airport capacity (in D day) that will allow the Network
1211 Manager and network actors to evaluate possible capacity constraints at the network airports
1212 (ground nodes) in combination with airspace sector capacity

1213 To be validated in VP700

1214 2. Airport Event Information

1215 AOP will provide NOP with Event Planning Information and Contingency Plan that contains
1216 elements like the event kind, probability, area or process of airport impacted, expected
1217 recovery scenario and possible aircraft type restrictions. This information will allow NMOC to
1218 establish the network impacts of a sudden or planned capacity changes or reductions due to
1219 the event.

1220 Not to be validated as it does not fit in the validation timeframe of VP700 or VP749 that only
1221 covers D and D-1 However this functionality is currently available in the NOP in the Airport
1222 Corner and Network events portlets

1223

1224 Arrival and Departure Planning Information (AOP=>NOP)

1225 AOP will provide NOP flight specific arrival/departure information that will allow the NOP to calculate
1226 the flight profile (4D-trajectory) with these more detailed departure and arrival times and data
1227 provided.. This will result in more accurate NOP profiles and more predictability as it will improve the
1228 traffic demand accuracy and DCB process

1229 Runway Configuration Plan information exchange (AOP=>NOP)

1230 AOP will provide NOP the runway configuration information, mainly in D-1 or early D day, that will
1231 permit the Network to anticipate on pre-planned Runway configuration changes (e.g. change from
1232 inbound to outbound priority mode runway availability – maintenance/inspection, noise abatement
1233 etc.) and to apply these changes to the 4D flight profile models. This will increase the accuracy of the
1234 profiles that will be further improved upon reception of flight specific departure and arrival runway and
1235 SID/STAR on the D day –

1236 Flight Progress Information Exchange (NOP=> AOP)

NOP will provide access to flight progress information. Flight Progress Information is calculated by NM systems and includes flight status and profile estimates updated as the flight evolves in time, especially but not exclusively covering the airborne phase.

2.6.3 User Characteristics

Following actors (participants) have been identified

Main

U1. Airports to provide and consume data from NOP in order to improve both, NOP and AOP operations.

U2. NM to provide and consume data from AOP in order to improve both, NOP and AOP operations.

Secondary

U3 Flow Manager (FMP) provides data to AOP and NOP that help to build the respective plans and consume data

U4. Air Navigation Service Provider (ANSP)

U5. AO or CFSP

2.6.4 Operational scenarios

The following operational scenario and the related use cases that apply. UC in orange are for the moment optional. They are described in 07.06.01 OSED (see chapter 5 references [15] OPERATIONAL SCENARIO Flight planning information exchange between AOP and NOP (The Steady State)

Use–Case: Exchange Updated Runway Configuration Plan at D-1 [DPI/API-UC-001]

Use–Case: Exchange Updated Runway Configuration Plan at Day of Operation (D) [DPI/API-UC-002]

Use-Case: Exchange of API and DPI [DPI/API-UC-003]

Use-Case: Turn around delay, delayed outbound flight [DPI/API-UC-004]

Use-Case: Reduction in airport (runway) capacity [DPI/API-UC-005]

Use-Case: Traffic distribution adjustment [DPI/API-UC-007]

Use-Case: Dissemination of Flight Progress information – Flight suspension from AOP DPI process [DPI/API-UC-008]

Use-Case: Dissemination of Flight Progress information – Flight diverted from AOP API process [DPI/API-UC-009]

The following operational scenario and the related use cases are described in 07.06.01 OSED (see chapter 5 references [15] OPERATIONAL SCENARIO Traffic Demand Identification (The Steady State)

Use–Case: Exchange Update [UC-001]

The following operational scenario and the related use cases are described in 07.06.01 OSED (see chapter 5 references [15]

OPERATIONAL SCENARIO Airport Capacity and Event Plan information exchange between AOP and NOP (The Steady State)

Use–Case: Exchange updated airport capacity plan [UC-001]

Use–Case: Managing unplanned reduction in airport capacity [UC-002]

Use-Case: Managing unplanned increase in traffic demand (diverted flights) [UC-003]

Use-Case: Managing unplanned increase in traffic demand (business aviation) [UC-04]

Use-Case: Recovery from a disrupted situation UC-05]

2.6.5 Functional

2.6.5.1 Functional Decomposition

The functionality related to Departure and Arrival exchange between AOP-NOP, can be grouped in three:

Departure Planning Information The current DPI has been extended with new data elements exchanged and with an extended horizon that starts in 24h before the EOBT of a flight. . This corresponds to the concept extended DPI (e-DPI) AOP=> NOP

Arrival Planning Information. This is new information specific to a flight concerning his arrival. This is a new concept named API. AOP=> NOP

Flight Progress Information. This is data concerning the flight related to its status and estimates, actuals etc… resulting from the profile calculation in NM servers and enhanced with the provided AOP departure and arrival data. NOP=> AOP

See SVA 01 SDD in Chapter 5 Reference [17] for more detailed

2.6.5.2 Functional Analysis

See A.2 for mapping of services, operational UC and DOD requirement.

2.6.6 Service View

Information Exchange Requirements IER, Service Interface Specifications including the payload are described in the SDD , Service Technical Design in STDD see SVA 01 SDD, STDD and SCR in Chapter 5 References from [17] to [19].

3 Functional block Functional and non-Functional Requirements

Note also that as explained in the initial section of the document, this TS intends to cover the full set of functionalities required by the concept, but it does not imply that all these requirements are mandatory for the implementation of local tools.

3.1 Capabilities

3.1.1 Reference STAM implementation Capabilities

3.1.1.1 Capability Requirements for the demand / capacity display, analysis and alerting tools

3.1.1.1.1 Overview of OSED

A lot of the features of this subsystem which are described in the OSED exist today in EUROCONTROL NM systems and local tools. The activity this subsystem supports is sometimes called Monitoring.

OSED requirements express the need to calculate and show bar graphs of Entry and Occupancy counts and give warnings when thresholds are crossed. The bar graphs are required over a range of up to 6 hours ahead.

The Alerting mechanism described in the OSED is the two monitoring value scheme already known in the EUROCONTROL NM systems as OTMV, with the lower value known as “sustain” and the upper one “peak”.

The basic unit for traffic counting mentioned in the OSED is the Traffic Volume – a EUROCONTROL NM concept. Local tools tend to use Sectors or compositions of elementary sectors. This concept of Sector is a subset of Traffic Volume.

OSED requirements make the link from the traffic counts to lists of flights and further links to displays flight details.

OSED requires that the user can create a Hotspot in his area of responsibility. The OSED requirements request that they be viewed in the context of a Bar Graph.

OSED requirements list the possible states of a Hotspot, and attributes. It also explains how and when the state and properties of a Hotspot should change. Hotspots are linked to STAM and have other properties.

Finally the OSED describes the publication of Hotspot information and provides overview tools to show Hotspots of interest to the user.

3.1.1.1.2 Technical use case UC001: Define and monitor hotspot

Detecting a hotspot requires monitoring the situation and probably some (computer) system support, generally a bar graph of some predicted value which is a proxy for workload (e.g. occupancy counts), over which one or more lines are drawn showing the acceptable level. On this base, there may be a human decision – involving factors not known by the computer system – or an automatic alert. The FMP may monitor sectors or other countable things – the NM model of Traffic Volume is useful here.

- The FMP may monitor a predicted hotspot and not act due to his expectation that the prediction will change.
- The user may choose to publish a hotspot, to warn other FMP not to add to the traffic in that place and time,
- The FMP may decide to act on a hotspot (see UC002).
- The details of this decision process are outside the scope of this Technical Specification.

3.1.1.2 Capability Requirements for the flight selection tool and STAM editor

3.1.1.2.1 Overview of OSED

OSED requirements make the link from the traffic counts and hotspots to lists of flights. The flight list is a well-known function in DCB tools.

Flight lists are needed in this context to enable the user to Cherry Pick (choose one or more flights on which to act) or to decide not to use STAM and thus try to find some other solution.

There is an OSED requirement for colouring the flight list to highlight selecting and filtering facilities.

There needs to be a link from the flight list to a profile display (or displays) for a selected and these profiles need to be annotated with Hotspot and Traffic Volume information.

There needs to be a link from the flight selection tool to the STAM editor, either for one flight or many.

For the STAM editor, the STAM is designed with an interactive tool that validates the change to the flight. The STAM should be semantically and syntactically valid.

OSED requirements mention that STAM should change counts. There are three basic OSED requirements expressed:

- While a STAM is being coordinated the user would like to see the effect this STAM is intended to have.
- After a STAM has been coordinated, the counts should change for everyone.
- After a STAM has been implemented the counts should change for everyone.

OSED requirement indicate that STAM will be identified with names along with the possible states of a STAM. Each STAM has a “coordinate before” time and the state and parameters of a STAM should be published to the community.

3.1.1.2.2 Technical use case UC002 Elaborate STAM proposal and initiate collaboration

Business and user goals

The user goal is to elaborate Short Term ATFCM Measures proposal on punctual flights or flow which will lower the demand to an acceptable level in the identified hotspot with minimal operational, economic and environmental impact.

A secondary goal is to initiate collaboration process (M-CDM) with other FMPs, AOs and the Network Manager, and to provide electronic integration of STAM proposal in the Network Management operational activities.

Context of usage and summary

This use case is used when the FMP decides to act on an identified hotspot.

Closely linked to the decision to act to reduce a hotspot, is the consideration of what action is possible. One option is regulation. Cherry picking one or a few specific flights might also solve the problem with lower overall impact.

While cherry picking, the FMP will probably try to balance the following factors:

- Which aircraft can be STAM'd
- Minimisation of the number of STAM to solve the hotspot
- Acceptability (cost) of each STAM to the respective aircraft operator – perhaps even likelihood of agreement.
- Equity – whose turn is it to be STAM'd
- Impact on other ATM actors – up/down stream FMP, departure airport, destination airport…

The FMP should have some tools to help in this selection process. The process is really an optimisation of a multi-variable, multi-constraint problem but may look like an arbitrary choice.

Typically, the FMP workspace used for STAM management activities is composed of:

- The occupancy traffic counts on the traffic volume where the hotspot to be solved is identified
- The list of flights caught in the identified hotspot and that will be used for traffic complexity analysis in order to identify best candidates for applying STAM and resolve traffic imbalance with minimal operational, economic and environmental impact.
- The editor allowing to define, fine tune and further manage the STAM measures

Actors

- FMP Tactical Planner (primary actor)

Pre-conditions

The FMP Tactical Planner has decided to act on a dDCB hotspot as identified in UC001.

Post-conditions

STAM set proposal intended to clear the dDCB hotspot is elaborated and M-CDM is initiated (see UC003).

Main Flow

The use case starts when an FMP decides to act on a published dDCB hotspot.

The FMP can display and analyse hotspot traffic data by using coordinated views on occupancy counts and flight lists. The FMP will focus on flights generating traffic complexity where demand/capacity imbalance is detected.

Using enhanced features[1] to support identification and multi-selection of flights, the FMP identifies zero[2], one or more candidate flights to be added to a new or an existing Short Term ATFCM Measure (STAM) in the context of a hotspot[3].

In case a new STAM needs to be created, the FMP enters the STAM elaboration space and provides:

- The basic measure definition (i.e. type, state, period, description …)
- The different traffic constraints that the measure should implement in relation to the selected measure type
- The rules to be implemented by the system for managing the required Collaborative Decision Making process (i.e. actor type and related roles in subsequent M-CDM)

When the selected flights need to be added to an existing cherry picked STAM:

- The FMP is requested to identify the measure, possibly from a short list based on the displayed Hotspot or Traffic Volume
- The system displays the current details (definition, constraints, M-CDM rules) of the selected measure in the STAM elaboration space
- The FMP may update the current measure details, if needed. The FMP is warned that such update may affect the impact on flights already associated to the measure.

Once these measure definition elements are provided by the FMP, the system creates or updates the measure, initially in draft, and computes:

- The impact on the different flights affected by the measure (i.e. draft proposal flights are created)
- The M-CDM topics with detailed list of actors that will be involved and related roles (i.e. draft M-CDM topics)

The FMP analyses if the measure impact on each flight is as expected using additional functionalities of the STAM elaboration space:

- The measure proposal flight list reflecting latest updated proposal flights, if any
- The measure impact per flight showing detailed flight modifications resulting from the application of the measure (i.e. filtered proposal flight operational log)

The hotspot traffic data coordinated views on occupancy counts and flights are refreshed by the system to reflect latest measure impact. The UC main flow possibly returns to the start allowing the FMP to analyse traffic data based on latest proposed measure and possibly continues adding flights to existing or new measures.

At any moment, the FMP can use other counts and flights functionalities (i.e. other than the one focussed on the Hotspot TV) to further refine his perception of the traffic situation taking proposal flights into account or not.

Even while proposed measures and flights are still in M-CDM draft state, the FMP is able to check and update the generated M-CDM details (i.e. list of detailed actors and roles) in the M-CDM tool.

The FMP can remove flights from the Measure proposal flight list of the STAM elaboration space (possibly also from the Hotspot and STAM Set proposal flight list)

[1] Enhanced features suggestions: select/exclude all based on current filter, select all in range, invert selection, conditional auto selection (affected by other STAM, other hotspot or other regulation),
[2] Allowing for zero flights attached to a measure will allow initiating M-CDM process on a topic independently of any specific flight.
[3] Measure could be simply linked to a Traffic Volume without a defined hotspot in a simulation context.

At any moment, the FMP can see a measure set overview by listing all measures linked to a Hotspot or defined on a Traffic Volume. This overview provides easy access to the STAM elaboration space for each measure without a flight context imposed by the Hotspot flight list (i.e. Hotspot flight list only displays measures when they are affecting a listed flight) and optionally also for cancelled / abandoned measures.

The FMP can force CTOT on any selected flight to add to or modify an identified STAM of type delay.

The FMP can file a rerouting proposal on any selected flight to add to or modify an identified STAM of type reroute.

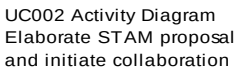
The FMP can update the M-CDM state of the ongoing collaborations starting from several displays:

- The Hotspot M-CDM state from the measure set overview (possibly also from the Hotspot and STAM Set proposal flight list)
- The Measure M-CDM state from the Measure M-CDM Rules display of the STAM Editor
- The Flight M-CDM state from the Measure proposal flight list of the STAM Editor (possibly also from the Hotspot and STAM Set proposal flight list)

When the FMP is confident that the elaborated measure will bring down the load in the identified dDCB Hotspot to some more acceptable level, he can initiate the M-CDM process involving all identified actors by changing the M-CDM state to Proposed.

The use case terminates when STAM Set, STAM and/or related flight proposals are submitted to the M-CDM approval and implementation process (see UC003*)*.

1475 **Activity diagram**



1476

1477 Figure 9: UC002 Activity diagram

1478 ### 3.1.1.3 Capability Requirements for the coordination tool

1479 #### 3.1.1.3.1 Overview of OSED

1480 The coordination tool as described in OSED requirements is completely integrated with the other
1481 functions; notably full integration with the Hotspot lifecycle, count tools and the STAM editor.

1482 Much of the state needed in the coordination process is the state of the STAM. The coordination
1483 process refers to many data values of the STAM: notably Hotspot, Flight, STAM ID, STAM type and
1484 parameters, flight profiles and coordination before time. The Coordination uses the STAM initiator and
1485 can change the STAM responsible as well as the STAM state.

1486 There needs to be an easy HMI path from the Coordination tool to data associated with the
1487 coordination; the Hotspot, the Flight(s) and their profiles, the STAM(s).

1488 The coordination tool itself has some specific HMI OSED requirements. The display must be updated
1489 appropriately and contain sufficient information. There needs to be an overview of ongoing
1490 coordination given as summaries.

1491 Once a single coordination has been selected then further details are revealed of the coordination.

1492 #### 3.1.1.3.2 Technical use case UC003 Collaborate to the STAM measure and
1493 implementation process

1494 #### 3.1.1.3.3 Business and user goals

1495 The user goal is to reach the consensus on a measure's proposal together with the other actors
1496 involved. To achieve this goal the user promotes and monitors with the actors a collaborative decision
1497 making process, the possible outcomes of the process are two:

1498 • the proposal is moved to the implementation phase where the plan to mitigate the hotspot is
1499 executed;

1500 • the proposal is refused and consequently discarded.

1501 #### 3.1.1.3.4 Context of usage and summary

1502 This use case is activated when the M-CDM starts. The previous use cases have already established
1503 the following:

1504 • There is a hotspot.

1505 • Either

1506 o i) One flight is selected for one STAM

1507 o ii) More than one flight has been selected for one STAM

1508 o III) More than one flight has been selected for more than one STAM

1509

1510 There are two basic cases to describe; i) and ii).

1511 We can consider iii) as a combination of i) and/or ii) type, so no separate explanation is needed, the
1512 appropriate use case is simply exercised the necessary number of times.

1513 The actors involved in the use case get access to a M-CDM tool, an HMI interface that shows and
1514 supports the decision process. The interface slightly differs according to the actors' role in the
1515 process, but it's composed of 5 main blocks:

- A dDCB M-CDM List – a list that allows quickly filtering of the M-CDM topic relevant to the actor with an immediate view on milestone and States.
- A dDCM M-CDM View – which shows the full details of one proposal and allows the user to participate to the M-CDM process.
- A Timeline – which displays the information of the M-CDM List in a time dimension helping the actors planning their workflow.
- A Task Reminder – which keep the focus on the next 4-5 expected actions for the user in a time dimension with less detailed information than the timeline and M-CDM
- A Notification Screen – which provides the last information for the selected topic according to the user preferences.

Using the M-CDM tool the users can vote on the measure, make comments and/or propose alternatives. It's the responsibility of the Initiator to evaluate and decide how to end the collaboration process.

3.1.1.3.5 Actors

- FMP Tactical Planner – Initiator of the M-CDM (primary actor)
- Tactical Network Manager
- AO
- Tower Tactical Planner
- Other FMPs

3.1.1.3.6 Actors' Roles

The M-CDM process is between a predefined group of actors who have in common to be impacted or potentially impacted by the particular STAM.

- **Initiator** – The user who starts the M-CDM. The Initiator can edit the M-CDM, change its State and modify the actors and roles. There is only one Initiator for one M-CDM.
- **For Information** – Any addressable actor can be "For Information". This role should see the M-CDM information. This party can contribute to the process if they wish.
- **For Approval** – This role sees all that the "For Information" role sees and should approve or reject the Measure during the decision making process.
- **For Implementation** – This role is a specialisation of "For Approval". The For Implementation role must approve or reject the Measure and in doing so commits to be available to implement the Measure if the process reaches the implementation phase.

For a particular STAM topic, every actor should have only one role at a given time except the Initiator who may also be responsible implementer. Roles may be adjusted during M-CDM process.

Note that in the Use Case there can be uninvolved actors among the FMP/ATC/AO community. These may be upgraded to other roles during the M-CDM process under the control of the "Initiator".

3.1.1.3.7 Pre-conditions

The FMP creates a STAM Set/STAM/STAM Flight and propose it for the M-CDM process.

3.1.1.3.8 Post-conditions

Two possible post conditions:

- The proposal is discarded;
- The proposal goes to the implementation phase.

3.1.1.3.9 Main Flow

The use case starts when the FMP Initiator submits a proposal for the M-CDM process based on a STAM Set/STAM/STAM flight.

Each user, according to its role, can perform one or more actions:

- Add a comment to the proposal, typing text messages in the M-CDM tool (All actors)
- Edit the rules of the M-CDM Topic, updating the actors involved, their roles and the deadlines for approving and implementing the measure (Initiator only)
- Add a new flight to the proposal, taking a flight from the hotspot which is not yet Stam'd (Initiator only)
- Propose an alternative, still using the proposed STAM but involving a different flight / different sequence of flights for the MDI, etc.. (Initiator / For Implementation (only in some cases))
- Cast a Vote, approving or rejecting the proposal (For Approval / For Implementation)
- Update the M-CDM States, editing the State of the M-CDM according to the evolution of the M-CDM process (Initiator/ For Implementation (only in some cases))
- Reset the votes (Initiator only)

In a process where interactions between the actors are kept to the minimum only the Voting and Update actions being taken, the FMP Initiator propose a Measure which is approved by the other actors, the FMP then moves the M-CDM State to "Coordinated" and subsequently, when it's time to move the implementation phase he changes the State again to "For Implementation".

The use case terminates when the M-CDM process reaches one of the two following States:

- Abandoned
- For Implementation

In the second case, the UC004 is activated.

3.1.1.3.10 Activity diagram

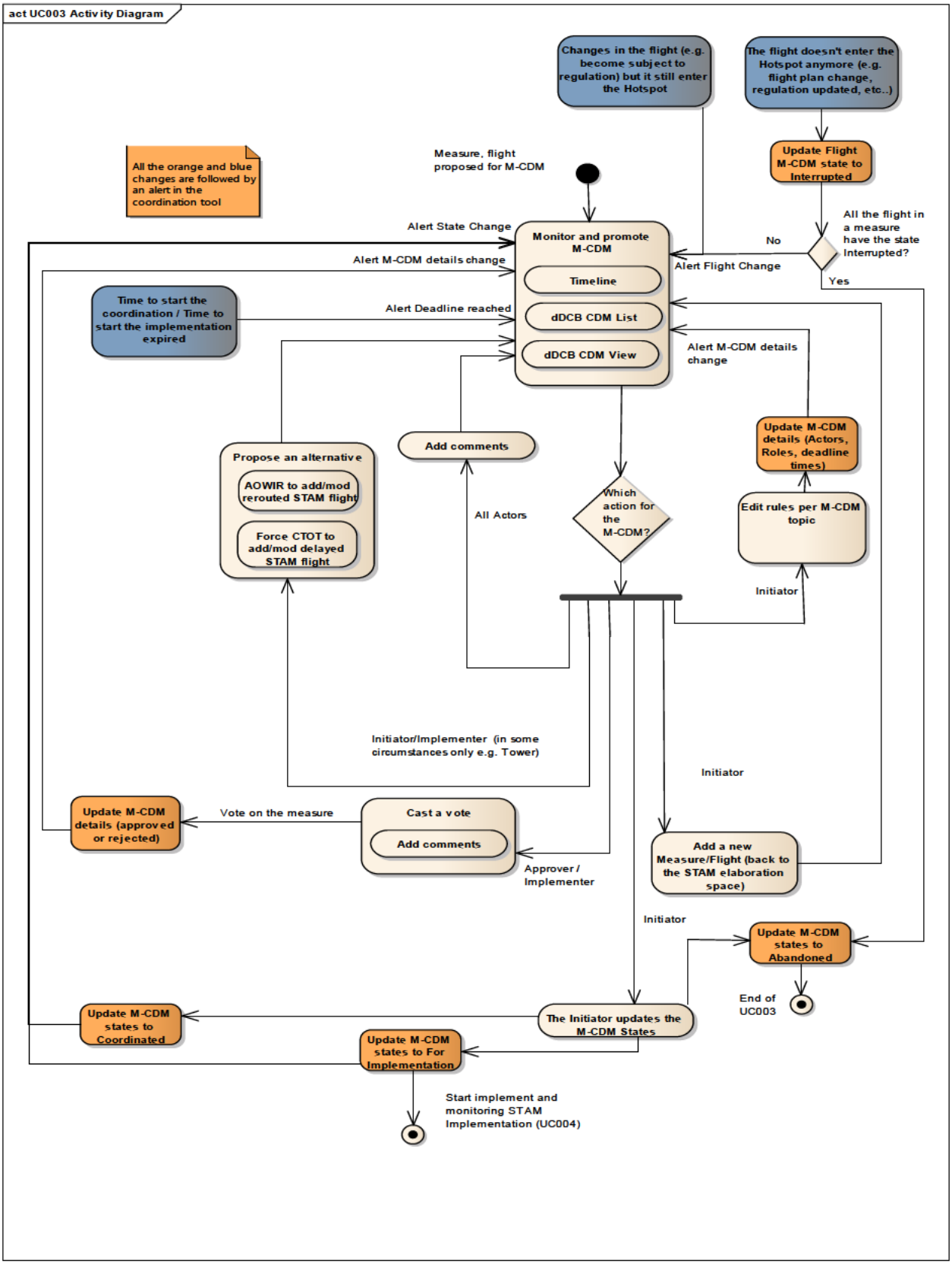


Figure 10: UC003 Activity diagram

3.1.1.4 Capability Requirements for the implementation tool and DCB logic changes

3.1.1.4.1 Overview of OSED

The implementation of the STAM requires that the appropriate people know they need to do something. The appropriate people could be

[9] Aircraft Operator and hence Pilot

[10]FMP and hence ATCO or ATCO directly

[11]Tower.

Supporting structure for STAM is needed to make it fit into the CASA world; there needs to be a way to extract a flight from CASA regulation to allow it to be STAM'd.

3.1.1.4.2 Technical use case UC004 Monitor implementation of agreed STAM

3.1.1.4.3 Business and user goals

The user goal is to successfully bring to implementation the measure proposed and agreed by the actors concerned. The implemented measure will solve (partially or completely) the Hotspot and avoid therefore a regulation on a larger scale. To achieve this goal the user monitors the process and assists the Implementer(s) of the measure.

There are two possible outcomes:

[12]The Measure is implemented

[13]the Measure is abandoned (due to different reasons)

3.1.1.4.4 Context of usage and summary

This use case is used when the M-CDM is on progress. The previous use cases have already established the following:

[14]There is a hotspot.

[15]There is an agreed measure to mitigate the Hotspot

The Initiator of the measure has now to monitor the situation and be sure that the assigned Implementer will take action to effectively execute the measure. The Initiator will use the M-CDM tool to monitor the situation and assist the Implementer.

3.1.1.4.5 Actors

[16]FMP Tactical Planner – Initiator of the M-CDM

[17]The Implementer – one or more amongst the following:

- Tactical Network Manager
- AO
- Tower Tactical Planner
- Other FMPs

3.1.1.4.6 Pre-conditions

The Initiator moved the M-CDM state to FOR IMPLEMENTATION

3.1.1.4.7 Post-conditions

The Hotspot ends and the M-CDM state is changed to FINISHED

3.1.1.4.8 Main Flow

The use case starts when the FMP Initiator moves the M-CDM state to For Implementation

Every user, according to its role, can perform one or more actions:

[18]Add a comment to the agreed plan, typing text messages in the M-CDM tool (All actors)

[19]Edit the rules of the M-CDM Topic, particularly the deadline for implementing the measure (Initiator only)

[20]Update the M-CDM States, editing the State of the M-CDM according to the evolution of the M-CDM process (Initiator/ For Implementation (only in some cases))

In a normal process the first actors to take action are the Implementers who have to execute the agreed measure (this is done outside the M-CDM tool), the FMP Initiator will receive a notification in the M-CDM tool by them or by automatic change in the Flights M-CDM states caused by external system (e.g. ETFMS). The notification will inform him whether one or more flights have implemented the measure or not. When he considers the measure implemented he changes the M-CDM State accordingly, when he believes the measure cannot be implemented he moves the Measure/Flight M-CDM State to Abandoned.

Subsequently when the Hotspot ends (to every hotspot is associated a validity time at time of creation) the system changes the M-CDM state to FINISHED for the Measure and all the flights belonging to the measure.

The use case terminates when the M-CDM process reaches one of the following two states:

[21]Finished

[22]Abandoned

3.1.1.4.9 Activity diagram

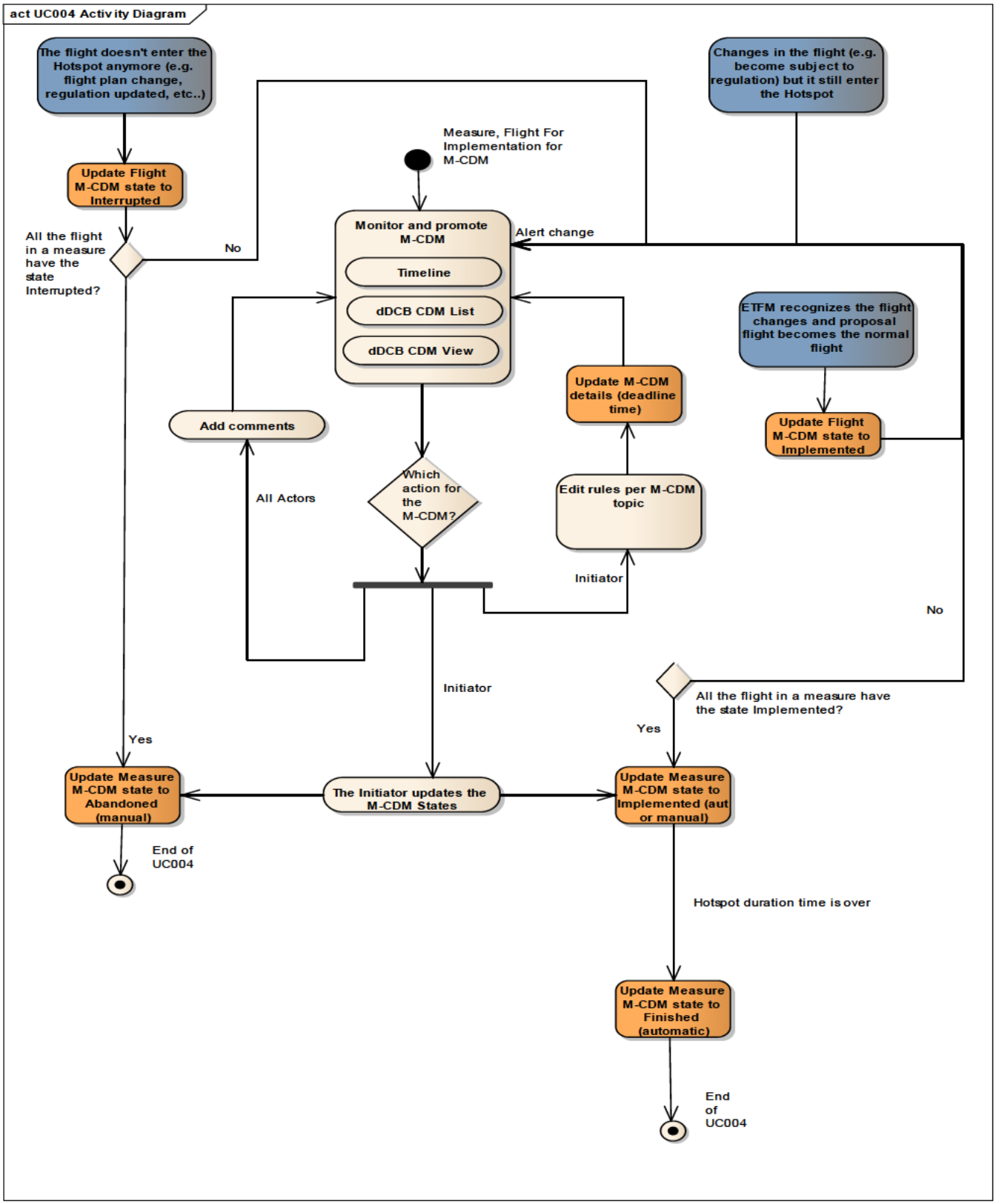


Figure 11: UC004 Activity diagram

1649 [REQ]

Identifier	REQ-13.02.03-TS-0137.0007
Requirement	The Traffic Load Monitoring function shall enable the FMP Manager or the NM ATFCM to monitor an Occupancy Traffic Counts display on a dedicated HMI view for a selected period, for a selected count duration and for a TV in his area of responsibility.
Title	UC:VIEW_COUNTS:VIEW_OCCUPANCY_TRAFFIC_COUNTS
Status	<Validated>
Rationale	Occupancy Count Display: Hotspot watch is an important activity of the FMP, see Occupancy traffic counts display example. The FMP uses Occupancy Traffic Count predictions (one per Traffic Volume of interest) on which he compares the occupancy counts with Occupancy Traffic Monitoring Values. His goal is to detected easily Demand Capacity imbalances. The parameters Count duration, Traffic Volume and time span (WEF and UNT) need to be set according operational considerations. Count duration is the width of one occupancy count bar. The count (height of the bar) is the number of aircraft in the sector (Traffic Volume) during one Count Duration time period. If defined then the OTMVs are displayed as horizontal lines indicating the limit values. An upper line is OTMV Peak, the lower line is OTMV Sustained. The FMP uses OTMVs for evaluating the necessity to create hotspots. In general the occupancy counts should be below the peak OTMV and not to often above the sustain OTMV. But the FMP's expertise is necessary to include other aspects (e.g. complexity, ATCO experience, …) for creation of hotspots
Category	<Functional>
Validation Method	
Verification Method	<Test>

1650

1651 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0001.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0003.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0007.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0010.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0014.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0015.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0017.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0001.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0002.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0024.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0025.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0026.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0027.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0028.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0029.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0031.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0034.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0043.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0044.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0054.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0056.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0057.0000	<Partial>

<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0061.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0063.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0065.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0108.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0109.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0322.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-0137.1007
Requirement	The Occupancy Traffic Counts HMI shall show occupancy counts in the bar diagram display with a colour code indicating severity with respect to two thresholds Monitoring Value Sustain and Monitoring Value Peak displayed as horizontal lines.
Title	UC:VIEW_COUNTS:VIEW_OCCUPANCY_TRAFFIC_COUNTS_II
Status	<Validated>
Rationale	Occupancy Count Display: Hotspot watch is an important activity of the FMP, see Occupancy traffic counts display example. The FMP uses Occupancy Traffic Count predictions (one per Traffic Volume of interest) on which he compares the occupancy counts with Occupancy Traffic Monitoring Values. His goal is to detected easily Demand Capacity imbalances. The parameters Count duration, Traffic Volume and time span (WEF and UNT) need to be set according operational considerations. Count duration is the width of one occupancy count bar. The count (height of the bar) is the number of aircraft in the sector (Traffic Volume) during one Count Duration time period. If defined then the OTMVs are displayed as horizontal lines indicating the limit values. An upper line is OTMV Peak, the lower line is OTMV Sustained. The FMP uses OTMVs for evaluating the necessity to create hotspots. In general the occupancy counts should be below the peak OTMV and not to often above the sustain OTMV. But the FMP's expertise is necessary to include other aspects (e.g. complexity, ATCO experience, …) for creation of hotspots
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0002.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0009.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0024.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0035.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-0137.0008
Requirement	The system shall allow the user to view past queries and interactions for validation and post operations analysis purposes
Title	UC_Package:REPLAY_QUERY_REPLY
Status	<Validated>

Rationale	REPLAY_QUERY_REPLY deals with the viewing functionalities of past interactions using an NM ATFCM HMI. The feature is most important for post analysis of life trials.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0013.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0021.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0023.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0081.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0082.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0083.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0084.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0085.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0086.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0087.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0088.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0089.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0090.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0091.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0092.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0093.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0094.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-0136.0106
Requirement	The Hotspot Management function shall allow the FMP to select one flight for a STAM from a hotspot flight list. Ideally the selection process should be possible with a simple mouse click.
Title	UC: MANAGE_HOTSPOTS:EXPRESS_STAM_PROPOSAL_A
Status	<Validated>
Rationale	STAM Initiation from hotspot flight list: Hotspot identification is the main process by which a local actor (FMP) notifies the network (adjacent FMP, AO) of potential application of STAM (hotspot). The STAM applied to one particular flight. The flight is chosen from a flight list which the FMP queries for the hotspot.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0011.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0012.0000	<Partial>

<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0033.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0036.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0037.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0040.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

1664
1665 [REQ]

Identifier	REQ-13.02.03-TS-0136.0105
Requirement	If a hotspot is solved then then the Hotspot Management function shall allow the FMP who created the hotspot to clear this hotspot using an Hotspot Management function accessible from the hotspot list.
Title	UC:MANAGE_HOTSPOTS:CLEAR_HOTSPOT_A
Status	<Validated>
Rationale	A "cleared" hotspot is still of interest to others. It is not the same as a cancelled hotspot. The FMP does not want more flights added to the traffic volume, for example.
Category	<Functional>
Validation Method	
Verification Method	<Test>

1666
1667 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0019.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0023.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0035.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

1668
1669 [REQ]

Identifier	REQ-13.02.03-TS-0136.0205
Requirement	If a hotspot is has been cleared then the corresponding shaded area on the Occupancy Traffic Count display shall disappear, the hotspot shall disappear from the hotspot list and the hotspot status shall change to Cleared.
Title	UC:MANAGE_HOTSPOTS:CLEAR_HOTSPOT_B
Status	<Validated>
Rationale	HMI should reflect cleared hotspot as no longer needing so much attention
Category	<Functional>
Validation Method	
Verification Method	<Test>

1670
1671 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0023.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0031.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0038.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

1672
1673 [REQ]

Identifier	REQ-13.02.03-TS-0136.0101

Requirement	When the FMP detects a risk of a demand capacity imbalance occurring within the time span displayed on the Occupancy Traffic Count display which he monitors then the Traffic Monitor function shall allow him to identify the imbalance as a Hotspot
Title	UC:MANAGE_HOTSPOTS:CREATE_HOTSPOT_A
Status	<Validated>
Rationale	Once the FMP has detected a hotspot the system should support the FMP by recording the hotspot in the system and being able to display it to him, his colleagues and other ATFCM actors. Hotspot identification is the process by which a local actor (FMP) notifies the network (adjacent FMP, AO) of potential application of STAM.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0016.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0017.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0018.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0020.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0023.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0035.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-0136.0401
Requirement	A hotspot shall be displayed as shaded area on the Occupancy Count Display.
Title	UC:MANAGE_HOTSPOTS:CREATE_HOTSPOT_D
Status	<Validated>
Rationale	The HMI should facilitate cognition.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0004.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-0136.0002
Requirement	The Hotspot Management function shall display existing hotspots as shaded areas in the Occupancy Count Display.
Title	UC:MANAGE_HOTSPOTS:CREATE_HOTSPOT_II
Status	<Validated>

Rationale	Occupancy Count Display - Hotspot modification: Hotspot watch is an important activity of the FMP, see Occupancy traffic counts display example. The FMP uses Occupancy Traffic Count predictions (one per Traffic Volume of interest) on which he compares the occupancy counts with Occupancy Traffic Monitoring Values. The goal is to detect easily Demand Capacity imbalances. The parameters Count duration, Traffic Volume and time span (WEF and UNT) need to be set according operational considerations. Count duration is the width of one occupancy count bar. The count (height of the bar) is the number of aircraft in the sector (Traffic Volume) during one Count Duration time period. If defined then the OTMVs are displayed as horizontal lines indicating the limit values. An upper line is OTMV Peak, the lower line is OTMV Sustained. The FMP uses OTMVs for evaluating the necessity to create hotspots. In general the occupancy counts should be below the peak OTMV and not to often above the sustain OTMV. But the FMP's expertise is important to include other aspects (e.g. complexity, ATCO experience, …) for creation of hotspots. Existing hotspots might need to be modified to adapt to traffic prediction updates. Past hotspots can not be modified anymore.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0065.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-0136.0104
Requirement	If a hotspot loses its relevance then the Hotspot Management function shall allow the FMP who created the hotspot to cancel this hotspot by means of a button or Hotspot Management feature accessible from the hotspot list.
Title	UC:MANAGE_HOTSPOTS:DELETE_OR_INTERRUPT_HOTSPOT_A
Status	<Validated>
Rationale	Decrease in traffic predictions can lead to the necessity to cancel a hotspot.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0065.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-0136.0103

Requirement	The Hotspot Management function shall allow the FMP to query a flight list corresponding to a previously created hotspot. The query parameters Traffic Volume name and Count Duration shall be preset from the Occupancy Traffic Count display in which the hotspot was created.
Title	UC:MANAGE_HOTSPOTS:DISPLAY_FLIGHTLIST_A
Status	<Validated>
Rationale	Hotspot resolution may be achieved by STAM. Resolution involves reducing the number of flights at some specific moment, hence any STAM is linked to one particular flight within that number. Thus the enabling step between a hotspot and a STAM is a list of the the flights in the hotspot.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0026.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0033.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0035.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-0136.1102
Requirement	There shall be an HMI function that displays existing hotspots in a tabular form. This HMI feature shall be openable and closeable by the user.
Title	UC:MANAGE_HOTSPOTS:MODIFY_HOTSPOT_A
Status	<Validated>
Rationale	The FMP uses hotspots to support his own monitoring of the traffic and to communicate with other users.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0011.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0028.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0038.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-0136.1202

Requirement	The HMI function showing hotspots in a tabular view shall allow existing hotspots to be edited, with these constraints - if the end time of the hotspot is in the past then no modification shall be possible - if the end time is in the future and the begin time is in the past then only the end time shall be modifiable. - if the begin time is in the future then all properties shall be modifiable: begin and end time, but neither can be changed to be in the past, severity, state
Title	UC:MANAGE_HOTSPOTS:MODIFY_HOTSPOT_B
Status	<Validated>
Rationale	In general the system log is considered an accurate history of events. Hence in general the user cannot modify the past.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0023.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-0137.0103
Requirement	The Traffic Load Monitoring function shall enable the FMP Manager or the NM ATFCM Operator, currently viewing OTMV definition details for a TV, to update the OTMV definitions or create new OTMV definitions for the selected TV with the restriction that updates shall have an applicability in the future.
Title	UC:MANAGE_OTMV:MAINTAIN_TEMPORARY_OTMV_DEFINITION_A
Status	<Validated>
Rationale	The OTMV may be revised at any moment depending on many factors known to the FMP.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0006.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-0137.0203
Requirement	OTMV creation or update parameters shall be: - time span (WEF and UNT) - overlap shall not be allowed - peak value - sustain value - shall be smaller than peak value - duration of counting per occupancy count.
Title	UC:MANAGE_OTMV:MAINTAIN_TEMPORARY_OTMV_DEFINITION_B

Status	<Validated>
Rationale	Comes from OSED and data model proposed by NMD
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0005.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-0137.0101
Requirement	The Traffic Load Monitoring function shall provide the FMP Manager or the NM ATFCM Operator with a function to display all OTMV definition details for a selected date and TV in his area of interest, as needed.
Title	UC:MANAGE_OTMV:VIEW_OTMV_DEFINITION_A
Status	<Validated>
Rationale	OTMVs: The FMP compares Occupancy Traffic Count predictions per Traffic Volume with Occupancy Traffic Monitoring Values. The goal is to detected easily Demand Capacity imbalances. If defined then the OTMVs are displayed over the counts. OTMV represent the allowable workload of the sector. Two monitoring values are shown known as 'Peak' and 'Sustained'.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0004.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0319.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-0490.0101
Requirement	When the STAM initiator has validated the STAM proposal then the system shall make the new STAM proposal accessible to all actors.
Title	UC:STAM_COORDINATION:DISPLAY_NEW_COORDINATION_LINE_A
Status	<Validated>
Rationale	From OSED requirement for Draft and non-Draft STAM.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0046.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0056.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0061.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-0490.0201
Requirement	The STAM Coordination function shall provide every actor with a STAM coordination window which shall display a list of STAM coordination summaries
Title	UC:STAM_COORDINATION:DISPLAY_NEW_COORDINATION_LINE_B
Status	<Validated>
Rationale	Design decision; the HMI recycles some ideas from many modern email tools. The HMI lets the user see summaries of many coordinations but expands only one - the current one.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0057.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-3501.0001
Requirement	When accessing flight or count related data (i.e. load states, traffic counts, flights, delays), the system shall allow the user to indicate which type of flight plan should be used in priority by the system to collect, compute and build up the requested reply data
Title	
Status	<Validated>
Rationale	This is a general requirement derived from a high level use case relating to proposal of flights
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0032.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0046.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0047.0000	<Partial>

<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0314.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0315.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-3501.0016
Requirement	The system shall allow an authorised user to initiate the creation of a new ATFCM measure from any kind of Flight List where the traffic imbalance has first been analysed so that the flights to be managed by this measure possibly identified.
Title	
Status	<Validated>
Rationale	In other words, measure creation should be possible from any flight list except measures flight lists linked to hotspot flights list and measure proposal flight list in the measure editor which are intended at following up flights already affected by measures. The user can select one or more flights before initiating the creation of a new ATFCM measure.
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0034.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0035.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0046.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0047.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0314.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0315.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-3501.0022
Requirement	Any regulation displayed in the regulation list of the measure function shall enable an action that allows the authorised user to display and possibly edit the details for this measure in the measure elaboration space.
Title	
Status	<Validated>
Rationale	This is a measure related requirement for list user interaction
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A

<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0036.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0037.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0038.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0046.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0047.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0036.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0314.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0315.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-3501.0026
Requirement	If user has specific measure update authorisation, when displaying an existing measure which is NOT in Terminated state and NOT in Cancelled state, the measure editor shall allow cancelling the measure.
Title	
Status	<Validated>
Rationale	A user forced cancellation is required.
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0046.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0047.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0048.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0049.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0314.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0315.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-3501.0035
Requirement	A Link Hotspot function shall facilitate the identification of the desired hotspot.
Title	
Status	<Validated>

Rationale	When the Link Hotspot function is invoked, several controls are adjustable to facilitate the identification of the hotspot: - Manual entry of the traffic volume on which the hotspot is defined - Date picker selection of the day of traffic on which the hotspot period is defined Once the traffic volume and the date are identified, the get hotspot action allows retrieving the list of relevant hotspots, the user is then able to select the desired hotspot from the proposed list If a hotspot was already linked to the measure when Link Hotspot function is invoked, above controls are initialised to the corresponding values for that hotspot. If no hotspot were already linked to the measure when Link Hotspot function is invoked: - Traffic Volume is initialised with the one defined for the measure, if any - Date picker is initialised with the start date of the measure period - The Hotspot drop down list is filled in with the hotspots defined for above Traffic Volume and Date, if any. The first entry in the list is selected by default.
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0037.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0046.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0047.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0314.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0315.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-3501.0048
Requirement	The system may allow Measure Collaborative Decision Making process (M-CDM) to be managed at the following levels: - On a Flight basis (for individual flights) - On a Measure basis (that may group several flights into the same measure)
Title	
Status	<Validated>
Rationale	This is a measure related MCDM business rule
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0043.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0046.0000	<Partial>

<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0047.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0063.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0065.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0020.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0314.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0315.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-3501.0049
Requirement	During the process, Measure Collaborative Decision Making may involve several participating actors who can either view or change the state of the process.
Title	
Status	<Validated>
Rationale	There may be more than one actor, each assigned one role. There must be one initiator. But other collaborators may for example, be able to vote on the appropriateness, some merely get visibility (for information purposes only).
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0046.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0047.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0063.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0065.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0072.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0078.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0314.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0315.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-3501.0050
Requirement	The system may allow several actors to participate in the Measure Collaborative Decision Making process (M-CDM), each actor being assigned one of the following roles: - Not involved - For information - For approval - For implementation - Initiator
Title	
Status	<Validated>

Rationale	Note: role not assigned at initiation but if actor was initially assigned some significant role like For information or For approval, when this role is to be reset, the entry is not deleted but role is set to Not involved Note that there could be zero approvers on the measure level in the case that there is no collaboration on the measure level (only on the flight level). Note that there could be zero implementers on the measure level in the case that: - There is no collaboration on the measure level (only on the flight level) - Or there is no need for an implementer role (e.g. simulations) - Or the initiator is the implementer Note that there could be multiple implementers on the measure level in case there is no collaboration on the flight level and multiple FMPs/AOs are implementers. Note that the initiator role is also needed on the flight level to allow the M-CDM tool to show the flight collaboration topic to the initiator.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0046.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0047.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0063.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0065.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0020.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0314.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0315.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0046.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0047.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0063.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0065.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0020.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0314.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0315.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-3501.0052
Requirement	The system shall use the measure deadlines for alerting but do not impact the business logic.
Title	

Status	<Validated>
Rationale	The flight M-CDM deadlines are not updatable. They are derived
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0046.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0047.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0052.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0069.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0314.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0315.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-3501.0058
Requirement	Once the M-CDM state of a MCDM collaboration is set to Proposed, then the collaboration shall start.
Title	
Status	<Validated>
Rationale	Initially all M-CDM actors have the M-CDM approval state Unknown Approval of any actor can be updated by that actor during M-CDM state Proposed. Hence Standby can be followed by Approve or Reject, or even Reject can be followed by Approve.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0046.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0047.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0020.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0314.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0315.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-3501.0059

Requirement	Procedures shall guarantee the following M-CDM state transitions are only performed by the authorised actor as listed in the following rules The format of each rule is Rule Number- From State => To State = Authorised Actor : Rule1- Not existing => Draft = Initiator Rule2- Draft => Proposed, Abandoned = Initiator Rule3- Proposed => Coordinated, Draft, Abandoned = Initiator Rule4- Coordinated => For_Impl, Proposed, Abandoned = Initiator Rule5- For_Impl => Implemented = Implementer or System Rule6- For_Impl => Coordinated, Abandoned = Implementer Rule7- Implemented => Finished, Interrupted = System Rule8- Implemented => For_Impl, Abandoned = Implementer Rule9- Draft, Proposed, Coordinated, For_Impl => Interrupted = System Rule10- Interrupted => Draft, Abandoned = Initiator
Title	
Status	<Validated>
Rationale	The state transitions responsibilities / permissions are defined so as to avoid offering more than one human actor the chance to change any state.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0046.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0047.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0075.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0107.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0112.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0015.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0041.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0109.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0314.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0315.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-3501.0065
Requirement	The measure elaboration space shall display a list of flights currently affected by the edited measure, allowing authorised FMP to monitor current measure impact and implementation state.
Title	
Status	<Validated>
Rationale	This flight list in the measure editor is designed to have similar column formatting as the Aircraft Operator flight list (i.e. not based on reference location as such reference is optional for some measures).
Category	<Functional>
Validation Method	
Verification Method	<Test>

1768
1769 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0039.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0046.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0047.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0314.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0315.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

1770
1771 [REQ]

Identifier	REQ-13.02.03-TS-3501.0074
Requirement	A separate tab on the Measure editor shall show the results of the measure on the flights.
Title	
Status	<Validated>
Rationale	This allows FMP to identify clearly if the measure creates overload on flights that could be subject to new regulations. It will show the results in the form of a list of simple textual operational log entries for the different flights.
Category	<Functional>
Validation Method	
Verification Method	<Test>

1772
1773 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0039.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0046.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0047.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0314.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0315.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

1774
1775 [REQ]

Identifier	REQ-13.02.03-TS-3501.0077
Requirement	The system shall provide an Edit measure facility that allows flights to be added and removed from each measure along with any necessary parameters. Essentially the measure editor allows the grouping of flight subject to the same STAM measure (eg: Ground delay).
Title	
Status	<Validated>
Rationale	This allows a user to create or modify the detailed definition of a regulation measure. This is detailed further below
Category	<HMI>
Validation Method	

Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0038.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0042.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0046.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0047.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0053.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0098.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0314.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0315.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-3501.0087
Requirement	When a new hotspot is associated to the measure on closing the Link Hotspot function, the system shall apply the following: - If the applicability period of the measure was either not defined (i.e. empty WEF/UNT) or was reflecting the previously associated hotspot, then the measure period is re-initialised based on the newly selected hotspot. - If the traffic volume of a measure of delay kind was either not defined or was reflecting the traffic volume of the previously associated hotspot, then it is re-initialised to the traffic volume on which the new hotspot is defined
Title	
Status	<Validated>
Rationale	Re-initialisation values apply
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0037.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0046.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0047.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0314.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0315.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-3501.0094
Requirement	The system shall provide authorised user with the possibility to accept or reject a proposal measure
Title	

Status	<Validated>
Rationale	This can occur when displaying an active proposal measure (i.e. Proposal to be Activated or Proposal to be Cancelled) On accepting the proposal measure, if M-CDM required is ON for that measure, a warning dialog is displayed highlighting the implications On rejecting the proposal measure, if M-CDM required is ON for that measure, a warning dialog is displayed highlighting the implications This will apply any change made to the displayed proposal measure definition (i.e. similar to save action), apply the requested modification or cancellation to the corresponding normal measure and set the proposal measure to Proposal Accepted or Proposal Rejected. (Measure modification requires specific update authorisation).
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0046.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0047.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0053.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0314.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0315.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-3501.0141
Requirement	The M-CDM Rules tab of the measure elaboration space shall allow assigning of collaboration role per user category using a decision table.
Title	
Status	<Validated>
Rationale	This allows controlling: - The level of details where the collaboration will happen per user category: -- On individual flights -- And/or on the measure - How ETFMS will compute the initial / default actors per user category - The collaboration sequence - for example: First AOs need to approve on a flight by flight basis (Ex: do they have enough fuel… or do they prefer delay…) Once AOs have approved, then neighbouring FMP have to approve on a measure by measure basis Or alternatively all actors have to approve at the same time Or any other required sequence The M-CDM Rules tab of the measure elaboration space does not allow managing directly M-CDM Roles (for_information / for_approval / for_implementation) for individual actors. This has to be done via the M-CDM tool.
Category	<HMI>

Validation Method	
Verification Method	<Test>

1788
1789 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0045.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0046.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0047.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0053.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0314.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0315.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

1790
1791 [REQ]

Identifier	REQ-13.02.03-TS-3501.0142
Requirement	The system shall allow for the possibility of no collaboration at M-CDM level
Title	
Status	<Validated>
Rationale	If for an M-CDM level, all M-CDM user categories have the role “Not involved” (i.e. blank cell), it means that there is no collaboration required at that level (i.e. no collaboration topic will be created for that level).
Category	<Functional>
Validation Method	
Verification Method	<Test>

1792
1793 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0045.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0046.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0047.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0314.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0315.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

1794
1795 [REQ]

Identifier	REQ-13.02.03-TS-3502.0004
Requirement	The system shall allow the user to be able to change the M-CDM state of flights, measures, via the M-CDM tool.
Title	
Status	<Validated>
Rationale	A flight can be subject to multiple M-CDM measures (e.g. 2 non related local airborne rerouting on the same flight). This means that a flight can have multiple M-CDM states: one per M-CDM measure.
Category	<HMI>

Validation Method	
Verification Method	<Test>

1796
1797 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0046.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0047.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0107.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0314.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0315.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

1798
1799 [REQ]

Identifier	REQ-13.02.03-TS-3502.0005
Requirement	The system shall permit the user to vote for the measure proposed by the Initiator as expressed (e.g. using a contextual menu): - in the Timeline - in the M-CDM View - in the M-CDM List
Title	
Status	<Validated>
Rationale	A vote can be cast only when the topic is in PROPOSED or INTERRUPTED M-CDM state, the vote in INTERRUPTED state is not automatic, it can be prompted if there are some changes in the measure and if the Initiator decides to reset the previous vote of the actor not considering it anymore valid in the actual circumstances.
Category	<Functional>
Validation Method	
Verification Method	<Test>

1800
1801 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0046.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0047.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0058.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0064.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0314.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0315.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

1802
1803 [REQ]

Identifier	REQ-13.02.03-TS-3502.0007
Requirement	The system shall allow the actor to add to the vote a comment to facilitate the M-CDM process.
Title	

Status	<Validated>
Rationale	This may give, for example, explanations on its refusal, proposals for picking-up another flight, a different reroute, a different kind of measure .
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0046.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0047.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0058.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0314.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0315.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-3502.0022
Requirement	The basic HMI shall consist of a list of summaries of MCDM process coordination events.
Title	
Status	<Validated>
Rationale	In the list there is always exactly one currently selected coordination for which further information is shown in the M-CDM View. Selecting a line will globally select the measure/flight throughout the application (i.e. in the timeline, and in the M-CDM View).
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0046.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0047.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0050.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0059.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0098.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0314.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0315.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-3502.0043

Requirement	The MCDM state change options shall be available to change, but only be present if the user has the appropriate permission.
Title	
Status	<Validated>
Rationale	Selecting an enabled state change option updates the measure state. If present, the state change options added to the menu will be DRAFT, PROPOSED, COORDINATED, FOR IMPLEMENTATION, IMPLEMENTED, ABANDONED (only for Flights topics), FINISHED If present, each state change option will only be enabled if the user can affect the given implied state change.
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0046.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0047.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0048.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0112.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0314.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0315.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-3502.0049
Requirement	The Communication History Screen shall contain all the messages (human and/or system) for the selected topic
Title	
Status	<Validated>
Rationale	This gives visibility on all messaging
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0046.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0047.0000	<Partial>

<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0050.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0060.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0061.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0062.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0103.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0110.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0113.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0314.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0315.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-3502.0071
Requirement	The system shall activate the Timeline when toggling between the M-CDM List and M-CDM View with the Timeline.
Title	
Status	<Validated>
Rationale	The timeline is in essence a different presentation of the M-CDM List, with the following basic differences The timeline seeks to show the minimum number of topics while the list should generally show the maximum number. The timeline focuses on topics that need the users' attention or input, while the list is a general reference for the complete set of information or the complete set filtered in some way. The different items (from now on called Reminders) are positioned vertically on a time scale as determined by the next "deadline" for each item. The time line seeks to help the user optimise his task load. Each Reminder on the left represents a task to be performed and Reminders on the right represent an item to be monitored. The button will be available only to FMP users.
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0046.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0047.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0314.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0315.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-3502.0072
Requirement	From the time line, the system shall allow the user to view and expand system information and reminders with details
Title	
Status	<Validated>

Rationale	For every measure it will display a list of flights contained in the measure (ARCID, ADEP. ADES, IOBT)
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0046.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0047.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0103.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0110.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0113.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0314.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0315.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-3503.0008
Requirement	The system shall allow the force CTOT action request per flight to be sent, once the required force flight time shifting details are entered.
Title	
Status	<Validated>
Rationale	The user is able to send the force CTOT action request per flight details
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0034.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0046.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0047.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0314.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0315.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-3503.0009
Requirement	The system shall allow the cancellation of the force CTOT action request per flight.
Title	
Status	<Validated>
Rationale	The flight can then be removed from the candidate list for force CTOT action.
Category	<HMI>

Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0034.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0046.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0047.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0314.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0315.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-3504.0002
Requirement	Next to the measure type, the system shall allow the user to identify the measure sub-type.
Title	
Status	<Validated>
Rationale	This measure sub-type is used to support communication and drive decision during measure elaboration and the M-CDM process.
Category	<Design>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0040.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0041.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0046.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0047.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0314.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0315.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-3504.0009
Requirement	A measure shall have 3 timeout deadlines - time to coordinate by (TTC) - time to start implementation by (TTS) - time to implement by (TTI)
Title	
Status	<Validated>
Rationale	This is a measures related business rule
Category	<Design>

Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0044.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0076.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0314.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0315.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

3.1.2 Target Time Management Capabilities

This sub-section describes the requirements related to the setting and modification of Target Times.

Two technical use cases are described, as introduced above.

3.1.2.1 Use Case – UC007

TECH USE CASE #UC007	FMP sets target times for arrivals at airport
Goal in Context	The FMP needs to manage a new overload at a destination location: – At the ADES – In approach to the ADES – In a final sector intersecting with the STAR
	The overload consists of a capacity reduction due to various circumstances (e.g. temporary runway closure or heavy rain) or an period of over-delivery of A/C which could have to do with favourable or unfavourable conditions that accelerate or decelerate the arrival of A/C at the airport causing sudden peaks in occupancy.
	The overload is of a short term nature, not safety critical, and can be resolved by selecting a limited number of flights
Scope & Level	
Preconditions	Steady State has been established

Success End Condition	Return to steady state
Failed End Condition	Steady state no longer possible
Primary, Secondary Actors	FMP AOP Proxy
Trigger	The FMP has detected an overload condition
DESCRIPTION	Action
Step 1	The FMP Creates a Hotspot
Step 2	The AOP get Hotspot Plan – details of the Hotspot
Step 3	The AOP requests Flight Data via Flight Lists for fights within the range of the hotspot period
Step 4	The AIMA tool evaluates all flights involved in the hotspot.
Step 5	The AIMA tool retrieves each flights MPC (Most Penalizing Constraint) information and ensures that these flight are not affected
Step 6	The AIMA tool processes the flight schedule deviations, assesses their severities and calculates optimal STAM TTA time-based constraints to smooth and to resolve the hotspot at the Arrival Airport. Note that the optimal ELDT is provided by AIMA through the AOP, the TTA is derived outside of AOP.
Step 7	The AOP provides the FMP with a proposal list of sequenced flights for the reference location (e.g. the airport or approach sector)
Step 8	The FMP performs a what if analysis by allocating delays at the arrival fix of the F15 and transferring the corresponding delay to a CTOT at departure
Step 9	When the FMP is satisfied that his goals are met – the Flight List is committed to establish target times of Arrival for the new flight sequence
Step 10	The proxy ensures that the CTOT are correctly reflected to the AOP and the TACT system such that there is one representation of the situation within the fuller context

EXTENSIONS	
SUB-VARIATIONS	

1849

1850 ### 3.1.2.2 Use Case – UC008

1851

TECH USE CASE #UC008	FMP sets/updates target times for arrivals at airport as part of the revision process
Goal in Context	The FMP has already created a Hotspot and set target times. The FMP is monitoring the Hotspot to ensure that the Hotspot is still resolved. The FMP still needs to monitor and manage the initial overload at a destination location during the execution phase: – At the ADES – In approach to the ADES – In a final sector intersecting with the STAR
Scope & Level	
Preconditions	Steady State has been re-established but a previously resolved Hotspot is no longer resolving the traffic situation.
Success End Condition	Return to steady state
Failed End Condition	Steady state no longer possible

Primary, Secondary Actors	FMP AOP Proxy
Trigger	The FMP has detected an overload condition in an existing Hotspot
DESCRIPTION	Action
Step 1	The FMP modifies the existing Hotspot
Step 2	The AOP get the updated Hotspot Plan – detailing the Hotspot changes
Step 3	The AOP requests Flight Data via Flight Lists
Step 4	The AIMA model revaluates all flights involved in the hotspot.
Step 5	The AIMA tool retrieves each flights MPC (Most Penalizing Constraint) information and ensures that flight in a regulation are not affected
Step 6	The AIMA tool processes the flight schedule deviations, assesses their severities and calculates optimal STAM TTA time-based constraints to smooth and to resolve the hotspot at the Arrival Airport.
Step 7	The AOP provides the FMP with its preferred Flight sequence
Step 8	The FMP performs a what if analysis
Step 9	When the FMP is satisfied that his goals are met – the Flight List is committed to establish target times of Arrival for the new flight sequence
Step 10	The proxy ensures that Forced CTOTs are set in the NMVP ETFMS system to reflect the new target times
EXTENSIONS	The FMP may choose to change the way in which the hotspot is resolved by: - Adding flights to the measure - Removing flights from the measure - Adjusting resolution to protect other sectors from overload - Changing the delay given to a flight already in the measure

	Indeed it may be a combination of the above items.
Extension 1	FMP adds flights
Extension 2	FMP removes flights
Extension 3	FMP protects other sectors from overload
Extension 4	FMP changes the delay given to a flight
SUB-VARIATIONS	
Step 5 (alternative)	The AIMA tool retrieves each flights MPC (Most Penalizing Constraint) information to ensure that: • Flights that are identified as being in the original existing hotspot (TTAs set) are considered as part of the revision process • Flights in other regulation are not affected

1852
1853

1854 [REQ]

Identifier	REQ-13.02.03-TS-7801.0000
Requirement	The system shall define the TTO_Fix as the closest point to its regulation's reference location (point or airspace boundary).
Title	BR.ETFMS.DATA.FLIGHT.TTO.001.1
Status	<Validated>
Rationale	TTO is expected for the flight's entry into the regulated location. The regulated location could be any of a sector, a point, an aerodrome or a set of aerodromes.
Category	<Design>
Validation Method	
Verification Method	<Test>

1855
1856 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0203.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0116.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

1857
1858 [REQ]

Identifier	REQ-13.02.03-TS-7804.0000
Requirement	To be affected by a Regulation, the system shall select flights that are a member of the traffic volume associated to the regulation and must have the CTO at the Reference Location inside the Regulation Period. It means that TTOs shall not computed for exempted flights (long haul, exempted flights not concerned by an exceptional condition).
Title	BR.ETFMS.DATA.FLIGHT.TTO.001.4
Status	<Validated>
Rationale	The OSED makes a clear link between the Slot Allocation Message and the Target, for example in REQ-07.06.05-OSED-0204.0000.Flights may be passing through the regulation and not in receipt of a Slot Allocation Message. These flights are, as mentioned above, airborne when the regulation is applied, departing outside the region, or exempted. These flights will not have Targets calculated for them.
Category	<Design>
Validation Method	
Verification Method	<Test>

1859
1860 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0203.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0116.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

1861
1862 [REQ]

Identifier	REQ-13.02.03-TS-7809.0000

Requirement	The system shall compute new TTO_Fix information for all flights affected by a Target time, using its internal flight model.
Title	BR.ETFMS.DISPLAY.FLIGHT.TTO.001
Status	<Validated>
Rationale	This predicts the traffic once the regulations is applied.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0203.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0116.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-7811.0000
Requirement	The system shall define the TTO_Fix as follow:- - For a regulation defined over a point, the TTO_Fix is the reference location of the regulation. - For a regulation at the departure aerodrome, the TTO_Fix is the departure airport (ADEP). - For a regulation at the arrival aerodrome, the TTO_Fix point (TTA) corresponds to the last point of the FPL route and the first point of the STAR. If no STAR is defined for the flight then it is the last point before ADES is defined as TTO_Fix. - The TTO_Fix information for a regulation at the arrival aerodrome is similar to the ESTDATA field provided in a FUM message except that a DBE point could be defined as TTO_Fix. - For a regulation defined on a set of aerodromes, the TTO_Fix is computed on the ADEP and then the ADES if one of aerodromes is in the set of aerodromes. - For all other regulations (en route regulations with airspace as reference location), the TTO_Fix is the closest point next to the entry in the regulated location. - When no point is found (ADEP is not considered as a point) or the distance between the closest point and then entry in the regulated location is above the TTO_Max_Distance, no TTO_Fix is defined for this regulation.
Title	BR.ETFMS.COMPUTE.FLIGHT.TTO.001.1
Status	<Validated>
Rationale	Explains how a target is found.DBE points are unique identifiers for points whose names are homonyms with other points - at least within the IFPUZ.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A

<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0203.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0116.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-7813.0000
Requirement	As the flight passes over the point of the TTO_Fix, the system shall process any received position reports for the flight, and if the flight model for the flight contains the TTO_Fix point then the system shall calculate the time over and level at the TTO_Fix. This time over at TTO_Fix is known as the “Actual Time at Target” or ATT.
Title	BR.ETFMS.DEVIATION.ETACT.TTO.001.1
Status	<Validated>
Rationale	Required for on line and post ops performance checking.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0203.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0116.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-7814.0000
Requirement	If the system has an ATT for a flight, then the system shall assign a value to “TTO compliance” by comparing whether the TTO and ATT differ by less than the TTO Tolerance Window of the flight. The TTO Tolerance Window parameter shall thus be used to verify if the ATT is before, inside or after the acceptable period around the TTO and the TTO_Compliance attribute of the TTO_Fix shall be updated accordingly.
Title	BR.ETFMS.DEVIATION.ETACT.TTO.001.2
Status	<Validated>
Rationale	To be considered as inside the ATT must be inside the period [TTO - TTO_Tolerance_Window, TTO + TTO_Tolerance_Window] .Note The TTO tolerance window is more precise than the Slot Tolerance window.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0203.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0116.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

1877
1878 [REQ]

Identifier	REQ-13.02.03-TS-7816.0000
Requirement	For a specific user profile, the system shall display the TTO_Fix information in the flight list display.
Title	BR.ETFMS.REMOTE.FLIGHT.TTO.001.2
Status	<Validated>
Rationale	This is the display associated requirement
Category	<HMI>
Validation Method	
Verification Method	<Test>

1879
1880 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0205.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0115.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

1881
1882 [REQ]

Identifier	REQ-13.02.03-TS-7824.0000
Requirement	The system shall only display the TTO_Fix linked to the most penalising regulation.
Title	BR.ETFMS.DISPLAY.FLIGHT.TTO.003.6
Status	<Validated>
Rationale	For the NOP-Portal, the field TTO_Fix being an expensive field to query from the ETFMS server, it may only be retrieved per flight. Even if the full list of TTO_Fix is foreseen in the ICD, only one element (TTO_Fix linked to the most penalising) of the list will be returned by the ETFMS server.
Category	<Design>
Validation Method	
Verification Method	<Test>

1883
1884 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0205.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0208.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0115.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

1885
1886 [REQ]

Identifier	REQ-13.02.03-TS-D352.4101
Requirement	The system shall provide a target time based flight information server (tt server) useable by many clients.
Title	

Status	<Validated>
Rationale	The clients need access to internal data
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0207.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0208.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0211.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0213.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0405.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0406.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0407.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0408.0001	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0415.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0416.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0044.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0100.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0101.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0124.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0329.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Enabler>	NIMS-38	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.4102
Requirement	The target time shall be for a reference location on the flights trajectory as specified by the client
Title	
Status	<Validated>
Rationale	A common reference point is needs for all stakeholders
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0300.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0303.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Enabler>	NIMS-38	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.4103

Requirement	The target time based server shall provide clients with actual and derived target time based information, allowing the client to view, monitor and set/revise target time based information.
Title	
Status	<In Progress>
Rationale	The clients need to be able to process up to date Time based information
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0301.0000	<Partial>
<FIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0421.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0110.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0111.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0112.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0113.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SATISSPR-0114.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0117.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0119.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0128.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0207.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Enabler>	NIMS-38	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.4104
Requirement	The target time based server shall allow a client to set target time based information for unregulated flights
Title	
Status	<Validated>
Rationale	The System must take external Target Time updates into account
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0218.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0110.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0111.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0112.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0113.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0114.0000	<Partial>

<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0117.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Enabler>	NIMS-38	<Partial>

1901
1902 [REQ]

Identifier	REQ-13.02.03-TS-D352.4105
Requirement	The system shall provide a client with the current target time for all flights
Title	
Status	<Validated>
Rationale	Client sequences and action are based on timely Target Time information
Category	<Functional>
Validation Method	
Verification Method	<Test>

1903
1904 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0300.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0303.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Enabler>	NIMS-38	<Partial>

1905
1906 [REQ]

Identifier	REQ-13.02.03-TS-D352.4106
Requirement	When the flight is involved in a CASA regulation, the system shall cancel any associated target time information and prevent any target time updates from the client for that flight signalling an error
Title	
Status	<Validated>
Rationale	This is a SESAR Step 1 Limitation , whereby existing regulations are given priority
Category	<Functional>
Validation Method	
Verification Method	<Test>

1907
1908 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0401.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Enabler>	NIMS-38	<Partial>

1909
1910 [REQ]

Identifier	REQ-13.02.03-TS-D352.4107
Requirement	The system shall allow the local FMP to verify and confirm any client requests for target time changes
Title	

Status	<Validated>
Rationale	The client is able to propose Target Times but the FMP has overall responsibility
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0305.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0306.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0201.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0202.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0203.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0204.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0205.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0208.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0209.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Enabler>	NIMS-38	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.4108
Requirement	The system counts shall reflect any relevant proposed target time based changes and provide relevant warning indicators
Title	
Status	<In Progress>
Rationale	The FMP needs a current and accurate picture of the hotspot/ counts
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0427.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0444.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0201.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0202.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0203.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0204.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0205.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0206.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0208.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0209.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Enabler>	NIMS-38	<Partial>

1917
1918 [REQ]

Identifier	REQ-13.02.03-TS-D352.4109
Requirement	The AOP shall be capable of creating airport impact assessments and disseminating this information as flight sequence information (with Target Times)
Title	
Status	<Validated>
Rationale	The AOP may suggest flight sequence information for the FMP to use - according to its needs
Category	<Functional>
Validation Method	
Verification Method	<Test>

1919
1920 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0300.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0301.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0302.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0304.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0308.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0309.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0310.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0110.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0111.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0112.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0113.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0114.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0117.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0119.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0128.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0205.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0207.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Enabler>	NIMS-38	<Partial>

1921
1922 [REQ]

Identifier	REQ-13.02.03-TS-D352.4110
Requirement	The system shall allow a DCB Revision Process activation by the FMP whenever a recalculation of Target Times is required
Title	
Status	<In Progress>
Rationale	This allows the FMP to re-assess a hotspot when too much deviation has occurred
Category	<Functional>
Validation Method	
Verification Method	<Test>

1923
1924 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0431.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Enabler>	NIMS-38	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.4111
Requirement	The system shall update and process target times for all unregulated flights including zero delay to ensure (where possible) that target times are met.
Title	
Status	<Validated>
Rationale	After verification by the FMP, target times are committed.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0307.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0401.0001	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0404.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0201.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0202.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0203.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0204.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0205.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0208.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0209.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Enabler>	NIMS-38	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.4112
Requirement	The Network managing position (NWP) shall support local DCB by providing Target Time information display and editing facilities
Title	
Status	<Validated>
Rationale	The NWP must give the FMP the necessary tool support to fulfil the role
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A

<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0424.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0425.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0439.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0440.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0441.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0329.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0330.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Enabler>	NIMS-38	<Partial>

3.1.3 Local Tool Capabilities

This section is divided in sub-section according to the functionalities of the system. Each sub-section describes the requirements for the corresponding functionality.

3.1.3.1 Complexity Calculation Requirements

This sub-section describes the requirements related with the Complexity Calculation functionality.

[REQ]

Identifier	REQ-13.02.03-TS-D352.1101
Requirement	The system shall compute the complexity of the air traffic situation related to a sector configuration plan based on flight plan data and/or EFD messages received from the operational environment in function of the local parameters defined at a sub-regional level.
Title	Traffic complexity assessment
Status	<Validated>
Rationale	One of the main functionalities of the system is the assessment of traffic complexity
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-0001.0002	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-0001.0002	<Full>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-0005.0002	<Full>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-REL5.0002	<Full>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1102
Requirement	The system shall calculate the complexity of a situation with a merge of real flight plans and the what-if flight plans generated by the user
Title	Current and what-if flight plan complexity calculation
Status	<Validated>
Rationale	The complexity can be calculated for the current flight plans updated by the online system or for a what-if flight plans proposed by the user.
Category	<Functional>
Validation Method	

Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-0001.0003	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1103
Requirement	The system shall calculate the air traffic situation complexity based on the merged information of flight plans received from the NM and the local ATC trajectory information.
Title	Merge of NM and local ATC information for complexity calculation
Status	<Validated>
Rationale	The NM flight plans and the local ATC plans information are merged to obtain a more accurate trajectory sets for improving the reliability of the complexity predictions.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-REL5.0002	<Full>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1104
Requirement	The system shall allow the input of capacity thresholds for each ATC sector.
Title	ATC sector capacity
Status	<Validated>
Rationale	ATC sector capacity threshold can be modified to reflect the maximum, normal or minimum values of the capacity that each sector can assume
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0004.0000	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1105
Requirement	The system shall take into account the areas Airspace Reservations (ARES) to calculate the traffic complexity.
Title	Military areas
Status	<Validated>
Rationale	The complexity prediction has to use the military area availability to perform

	the traffic complexity estimations.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1106
Requirement	The system shall take into account the meteorological information to perform the air traffic complexity assessment.
Title	Weather information
Status	<Validated>
Rationale	The complexity prediction should to use the weather information to improve the accuracy of the traffic complexity estimations.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-REL5.0012	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1107
Requirement	The system shall calculate the complexity of the air traffic within a look-ahead time horizon from 5 to 240 minutes (configurable in the HMI).
Title	Look ahead time horizon
Status	<Validated>
Rationale	Air traffic complexity will be calculate during the time interval defined by the time horizon
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0001.0000	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1108
Requirement	The system shall calculate the complexity of the air traffic taking into account the time granularity specified by the user.
Title	Time granularity

Status	<Validated>
Rationale	The complexity calculation can be performed with different accuracy depending on the time granularity defined by the user
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0005.0000	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1109
Requirement	The system shall calculate individual flight contribution to the global complexity figure.
Title	Flight contribution to complexity.
Status	<Validated>
Rationale	The system calculates the individual contribution to the complexity to ease the identification of the flights that contribute more to the traffic complexity
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-REL5.0001	<Full>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1110
Requirement	The system shall use flight trajectory conflict information to perform the complexity prediction.
Title	Conflict information to calculate traffic complexity
Status	<Validated>
Rationale	Information about conflicts on flight trajectories is used to potentially improve the accuracy of the traffic complexity calculation.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1111
Requirement	The system shall calculate the prediction of the traffic complexity based on

	controller workload and complexity indicators.
Title	Prediction complexity indicators
Status	<Validated>
Rationale	The complexity indicators used for the complexity prediction will be Occupancy and Entry rate, moreover the controller workload will be calculated as well to improve the accuracy of the traffic complexity prediction.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0001.0000	<Full>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-0001.0006	<Full>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1112
Requirement	The system shall store the complexity calculations in a format suitable to perform further analysis.
Title	Prediction complexity storage
Status	<Validated>
Rationale	The complexity calculus will be stored so that the user can analyse them in further phases
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-REL5.0013	<Full>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1113
Requirement	The system shall provide the user with the quality of the prediction for the complexity calculation.
Title	Information quality
Status	<Validated>
Rationale	The system calculates the information quality used in the complexity calculation.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1114
Requirement	The system shall generate alerts when the complexity indicator values exceed specified thresholds.
Title	Alerts of overload
Status	<Validated>
Rationale	The system will warn the user when the complexity of the air traffic surpasses the thresholds specified for the ATC area
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0004.0000	<Partial>

3.1.3.2 STAM Process Requirements

This sub-section describes the requirements related to the STAM processes to be supported by the system.

[REQ]

Identifier	REQ-13.02.03-TS-D352.1201
Requirement	The system shall support the following STAM measures: • Level capping • Rerouting • Delay
Title	Supported STAM measures
Status	<Validated>
Rationale	Definition of the list of STAM measures supported by the system.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0040.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0041.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-REL5.0009	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1202
Requirement	The system shall support the user along the steps of the hotspot management at local level.
Title	Support hotspot processes
Status	<Validated>
Rationale	The system supports the different phases of the local level hotspot lifecycle. Those phases are the following:

	• Hotspot creation. • Hotspot confirmation. • Hotspot notification. • Hotspot cancellation. • Hotspot cleared.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0018.0000	<Full>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0019.0000	<Full>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0020.0000	<Full>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0021.0000	<Full>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1203
Requirement	The system shall allow the user to modify/update the attributes defined for a hotspot defined in his area of interest.
Title	Hotspot attribute modification
Status	<Validated>
Rationale	The user will be able to modify the standard set of attributes of the hotspot defined as follows: • Associated Location. • Period [start time; end time]. • Rationale. • Status. • Severity.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0023.0000	<Full>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0031.0000	<Full>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1204
Requirement	The system shall provide the list of hotspots created in the FMP area of interest.
Title	List of hotspot in the AOR
Status	<Validated>
Rationale	The user needs to know the different hotspots that have been created in his area of interest to assess the air traffic situation.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0028.0000	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1205
Requirement	The system shall provide flight information of the flights involved in a selected hotspot.
Title	Hotspot flight information
Status	<Validated>
Rationale	The user will be able to get the information of the fights captured in a specific hotspot in order to identify the status of the flights and identifying possible corrective actions.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0026.0000	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1206
Requirement	The system shall allow the user to define sub-set of flights (flows) in the AOI to facilitate the flow STAM measure elaboration.
Title	Traffic sub-sets
Status	<Validated>
Rationale	If it is needed to apply a STAM measure to a specific set of flights the system allow the user to define sets of flights which comply with specific characteristics.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0034.0000	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1207
Requirement	The system shall provide the possibility to manage cherry picking STAM measures in the FMP AOI.
Title	STAM cherry picking editor
Status	<Validated>
Rationale	The user needs to use an editor to create and modify the cherry picking STAM measures that are going to be proposed.

Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0037.0000	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1208
Requirement	The system may provide an editor to introduce flow STAM measures.
Title	STAM flow editor
Status	<Validated>
Rationale	The user needs to use an editor to create and modify the flow STAM measures that are going to be proposed.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0038.0000	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1209
Requirement	The system shall provide a set of STAM cherry picking measures composed at least by: • Rerouting • Level Capping • Departure time delay
Title	List of STAM cherry picking measures
Status	<Validated>
Rationale	All the users can use a standard list of STAM cherry picking measures.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0040.0000	<Full>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-REL5.0009	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1210
Requirement	The system shall provide a set of STAM flow measures composed at least by:

	• Rerouting • Level Capping • Departure time delay
Title	List of STAM flow measures
Status	<Validated>
Rationale	All the users can use a standard list of STAM flow measures.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0041.0000	<Full>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-REL5.0009	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1211
Requirement	The system shall use a standard set of parameters for the definition of a STAM measures.
Title	STAM measures parameters
Status	<Validated>
Rationale	The STAM measures have to be defined with a standard set of parameters so that all users will have a common understanding in the management of the measure.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0042.0000	<Full>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1212
Requirement	The system shall support the users during the different phases of the STAM coordination process at local and network levels.
Title	STAM coordination phases
Status	<Validated>
Rationale	The STAM coordination process is organised in line with the message exchange procedure performed along the phases of the process. The phases and messages are defined as: • STAM coordination initiation: FMP sends the proposed measure and request feedback from all the participants. • STAM coordination response: The involved actors send a response message to the FMP initiator. • STAM coordination consolidation: FMP collects all the responses and check the coherence of the proposals. • STAM coordination conclusion: FMP check that all actors involved have approved the STAM measure and if it si confirmed the STAM is coordinated.

	• Finally the STAM coordination process is closed.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0064.0000	<Full>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-REL5.0005	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1213
Requirement	The system shall display STAM coordination information needed for the participants.
Title	STAM coordination message information.
Status	<Validated>
Rationale	The STAM coordination message contains at least the following items: • List of flights IDs impacted by the STAM. • STAM measure identification. • Title summarizing the STAM measure type. • List of actors and roles. • Action for approval. • Accepted or rejected option.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0057.0000	<Full>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0058.0000	<Full>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-REL5.0005	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1214
Requirement	The system shall allow the user to define the list of actors involved in the STAM process and their roles.
Title	STAM coordination information.
Status	<Validated>
Rationale	The FMP should define the actors involved and their roles. The roles of the actors can be the following (defined on the OSED document -> REQ-07.06.05-OSED-0065.0000): RESPONSIBLE. FOR APPROVAL. FOR IMPLEMENTATION. FOR IMFORMATION.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0045.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0063.0000	<Full>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0065.0000	<Full>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-REL5.0005	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1215
Requirement	The system shall allow the user to define the timeout for the coordination phase establishing the maximum time available to complete the process.
Title	STAM coordination time-out definition
Status	<Validated>
Rationale	The FMP initiator, taking into account the air traffic situation and the proposed measure, defines a maximum time to complete the coordination process and notify it to the involved actors.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0052.0000	<Full>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-REL5.0005	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1216
Requirement	The system shall alert the involved actors when the coordination time-out is reached.
Title	STAM coordination time-out alert
Status	<Validated>
Rationale	All the involved user in a STAM coordination process should be warning about the time-out of the process so that the process could finish on time
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0044.0000	<Full>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-REL5.0005	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1217
Requirement	The system shall allow the user to notify the selected/proposed STAM measure to all actor involved by means of B2B services provided by NM

	STAM framework.
Title	STAM notification
Status	<Validated>
Rationale	The FMP initiator should notify the selected STAM measure to the participants in order to start the STAM coordination phase.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0043.0000	<Full>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-REL5.0005	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1218
Requirement	The system shall allow user, in his/her area of interest, to assess the STAM measures proposed by another FMPs
Title	STAM assessment
Status	<Validated>
Rationale	During the STAM coordination process the user should evaluate the proposed measures to accept/reject them or to propose alternatives.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0046.0000	<Full>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-REL5.0005	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1219
Requirement	The system shall allow the user to cancel a proposed or coordinated STAM, changing the STAM status and notifying the involved actors the closure of the STAM process.
Title	STAM coordination process closure
Status	<Validated>
Rationale	The FMP can close the STAM coordination process, two statuses will be considered at closure: - In case of STAM measure agreement, the status = COORDINATED - In case of no STAM Measure agreement,; the status = ABANDONED The system updates the new status of the STAM and notifies the participants the new status.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0048.0000	<Full>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0049.0000	<Full>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0050.0000	<Full>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-REL5.0005	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1220
Requirement	The system shall communicate the needed information between actors involved in the STAM processes by means of B2B services provided by the NM framework
Title	STAM communication framework
Status	<Validated>
Rationale	All the communication between the actors will be accomplished through the B2B services provide by the NM framework.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-REL5.0003	<Full>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1221
Requirement	The system shall support the user during the different phases of the STAM implementation process.
Title	STAM implementation process
Status	<Validated>
Rationale	The STAM implementation process is composed: • Change STAM status to IMPLEMENTED • Define the time out • Measure implementation. • Monitor the evolution of the air traffic • Change STAM status to FINISHED • Close the STAM process
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0075.0000	<Full>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1222
Requirement	The system shall allow the user to define the timeout for the implementation

	process establishing the maximum time available to complete the process.
Title	STAM implementation time-out definition
Status	<Validated>
Rationale	The FMP initiator, taking into account the air traffic situation and the proposed measure, defines a maximum time to complete the implementation process and notify it to the involved actors.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0076.0000	<Full>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1223
Requirement	The system shall alert the involved actors when the implementation time-out is going to be reached.
Title	STAM implementation time-out alert
Status	<Validated>
Rationale	All the involved user in a STAM implementation process should be warning about the time-out of the implementation so that the process could finish on time
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0069.0000	<Full>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1224
Requirement	The system shall exclude flights involved in a regulation from the list of candidates to apply a STAM measure.
Title	Exclusion of flights already regulated
Status	<Validated>
Rationale	A flight already affected by a regulation shouldn't be a candidate for a STAM measure. This avoid to penalize one particular flight taking more than one regulation measures
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0077.0000	<Full>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1225
Requirement	The system shall store the STAM messages associated to a hotspot and STAM measure in a format suitable for post-analysis purposes.
Title	STAM message storage
Status	<Validated>
Rationale	All the messages generated during the hotspot and STAM process resolution will be stored so that the user will be able to use them for archiving and further post-analysis purposes
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0081.0000	<Full>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-REL5.0013	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1226
Requirement	The system shall record the main decision-making times in a suitable media for post-analysis purposes
Title	Decision making times storage.
Status	<Validated>
Rationale	The stored decision making time will include at least: Hotspot notification, cancellation and clearance time. STAM notification, implementation, and cleared time.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0082.0000	<Full>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0083.0000	<Full>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1227
Requirement	The system shall record the evolution of the STAM process including the STAM implementation events associated to each STAM measure.
Title	STAM process evolution storage.
Status	<Validated>
Rationale	The evolution of the STAM process will be stored for post analysis purposes
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0084.0000	<Full>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0085.0000	<Full>

3.1.3.3 What-if Requirements

This sub-section describes the requirements related to the “What-if” functionality

[REQ]

Identifier	REQ-13.02.03-TS-D352.1301
Requirement	The system shall provide to the user a means to perform what-if sectorisation functionality.
Title	What-if sectorisation functionality.
Status	<Validated>
Rationale	The what-if sectorisation functionality helps the user to assess the impact of different sector configurations on the traffic complexity.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-0001.0017	<Full>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1302
Requirement	The system shall allow the user to select a specific sector configuration among a list of predefined sector configuration.
Title	Predefined sectorisation selection.
Status	<Validated>
Rationale	The what-if sectorisation functionality helps the user to assess different sector configurations.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-0002.0001	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1303
Requirement	The system shall allow the user to modify the start and end time of a specific sectorisation along a sectorisation plan.
Title	What-if sectorisation start end time.

Status	<Validated>
Rationale	The user can change the start and end time of a sectorisation to assess the impact on the situation complexity in order to solve imbalance situations. .
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-0001.0017	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1304
Requirement	The system shall calculate the workload and complexity indicators of the what-if sectorisation selected by the user.
Title	What-if sectorisation complexity calculation.
Status	<Validated>
Rationale	The system can calculate, under user request, the new workload and complexity indicators (occupancy, entry rate) of any what-if sectorisation the user has implemented.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-0001.0017	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1305
Requirement	The system shall provide to the user a means to perform what-if trajectory functionality.
Title	What-if trajectory functionality
Status	<Validated>
Rationale	The what-if trajectory functionality helps the user to assess the impact of different flight plan modifications on the traffic complexity, delay and the environment.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-0003.0001	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-REL5.0006	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-REL5.0007	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1306
Requirement	The system shall compute the complexity of the air traffic situation in the what-if trajectory functionality for one trajectory or a group of trajectories to support the selection of the dDCB measures
Title	What-if for one trajectory or a group of trajectories
Status	<Validated>
Rationale	The user can select one trajectory or a group of trajectory to use the what-if functionality in order to assess different dDCB solutions
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-REL5.0008	<Full>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1307
Requirement	The system what-if functionality shall allow applying the same set of STAM measures defined for the real trajectories
Title	What-if functionality STAM measures
Status	<Validated>
Rationale	The user can select the same set of STAM measures for the real trajectories and for the what-if trajectories so the user can assess the impact of the measure before applying it to a real trajectory.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-REL5.0009	<Full>

3.1.3.4 Sectorisation Optimization Requirements

This sub-section describes the requirements related to the optimization functionality for the sector configurations.

[REQ]

Identifier	REQ-13.02.03-TS-D352.1401
Requirement	The system shall provide sector optimization functionality to propose a ranked list of optimal sector configurations.
Title	Sector configuration optimization
Status	<Validated>
Rationale	Optimal sector configurations are proposed to the user to solve imbalanced demand capacity situations
Category	<Functional>

Validation Method	
Verification Method	<Test>

2192
2193 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-0002.0001	<Full>

2194
2195
2196 [REQ]

Identifier	REQ-13.02.03-TS-D352.1402
Requirement	The system shall use the selected complexity indicator or workload to calculate the optimal sector configuration.
Title	Selected indicator for the optimization
Status	<Validated>
Rationale	The optimization process will use the complexity indicator selected by the user to propose the optimal solution.
Category	<Functional>
Validation Method	
Verification Method	<Test>

2197
2198 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-0002.0002	<Full>

2199
2200
2201 [REQ]

Identifier	REQ-13.02.03-TS-D352.1403
Requirement	The system shall use predefined constraints to find the optimal solution of all the possible sector configurations available.
Title	Use of constraints in the optimization process
Status	<Validated>
Rationale	The optimization algorithm will use operational constraints to prune the search tree in the optimization process
Category	<Functional>
Validation Method	
Verification Method	<Test>

2202
2203 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-0002.0001	<Partial>

2204
2205
2206 [REQ]

Identifier	REQ-13.02.03-TS-D352.1404
Requirement	The system shall cancel the optimization process under user request.
Title	Optimization cancelation
Status	<Validated>
Rationale	If the optimization process takes for too long the user can cancel the optimization process

Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-0002.0002	<Partial>

3.1.3.5 HMI Requirements

This sub-section describes the requirements related to the HMI functionality.

[REQ]

Identifier	REQ-13.02.03-TS-D352.1501
Requirement	The system HMI shall display the complexity prediction (Entry counts, occupancy counts and workload) in a suitable HMI.
Title	System HMI
Status	<Validated>
Rationale	Complexity predictions will be shown to the user in the system HMI
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0001.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0024.0000	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1502
Requirement	The system HMI shall allow the user to select the complexity indicator which values will be displayed on the HMI.
Title	Selection of complexity indicator
Status	<Validated>
Rationale	The system HMI shall allow the user to select which complexity indicator will be used to display the complexity situation.
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-0001.0006	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1503
Requirement	The system HMI shall provide to the user a way to select the time horizon for the prediction complexity calculation.
Title	Time horizon selection
Status	<Validated>
Rationale	The user can select the time horizon for the prediction calculations
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0005.0000	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1504
Requirement	The system HMI shall allow the user to select the time of the sliding window time for the complexity indicator calculations.
Title	Selection of sliding window time
Status	<Validated>
Rationale	The user can select the sliding window time depending on the traffic situation.
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0005.0000	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1505
Requirement	The system HMI shall allow the user to set thresholds for the workload and complexity indicator values.
Title	Complexity indicator value thresholds
Status	<Validated>
Rationale	The user can set thresholds for the complexity indicators so that the system will warn the user when the complexity exceed the defined values.
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0002.0000	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1507
Requirement	The system HMI shall display the workload or complexity indicator of all sectors for the specified time horizon in predefined colours depending on the values of the defined thresholds.
Title	Complexity indicator coloured visualization
Status	<Validated>
Rationale	The complexity values are displayed for each sector and time interval in different colours depending on the predefined thresholds to easy the assessment of the situation complexity to the user.
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-0001.0002	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1508
Requirement	The system HMI shall display the workload or complexity indicator of a specific sector along the time horizon in a bar diagram under user request.
Title	Bar diagram display
Status	<Validated>
Rationale	.The traffic complexity of a specific sector can be displayed in a bar diagram on the HMI
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0007.0000	<Full>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1509
Requirement	The system HMI shall display the flight information list of a sector for a time interval when it is selected by the user.
Title	Display the flight information list
Status	<Validated>
Rationale	The user can select a specific sector and time interval to get the information of the flights in that sector during that time interval
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A

<ALLOCATED TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0003.0000	<Full>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0011.0000	<Full>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0032.0000	<Full>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-0001.0012	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-0001.0013	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1510
Requirement	The system HMI shall display in the flight information list the contribution of each flight to the traffic complexity.
Title	Traffic complexity flight contribution
Status	<Validated>
Rationale	The user can utilize the contribution of each flight to the traffic complexity in order to select candidates for further flight plan changes to solve imbalanced situations.
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-04.07.01-OSED-REL5.0001	<Full>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0011.0000	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1511
Requirement	The system HMI shall display the traffic load on a synthetic map of the local airspace.
Title	Map presentation
Status	<Validated>
Rationale	A presentation of the traffic load on a map will facilitate the assessment of the situation and get the user more confident on the tool.
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0010.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0014.0000	<Full>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1512
Requirement	The system HMI shall visualise the horizontal/vertical profile of the predicted flights involved on a hotspot.
Title	Horizontal/vertical profile of the flight
Status	<Validated>
Rationale	The vertical and horizontal flight profiles are useful to the user for assessing

	the complexity of any declared hotspot.
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0012.0000	<Full>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1513
Requirement	The system HMI shall provide predefined filters based on characteristics of the flights
Title	Filtering flight information
Status	<Validated>
Rationale	Predefined filters will be available in the HMI so that the user can focus on specific characteristics of the flights involved in a declared hotspot.
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0033.0000	<Full>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1514
Requirement	The system HMI shall highlight the flights belonging to a flow/traffic sub-set captured in a hotspot.
Title	Flow/traffic sub-set presentation
Status	<Validated>
Rationale	The user will easily identify the flights belonging to a defined flow due to the fact the they will be highlighted by the HMI
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0039.0000	<Full>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1515
Requirement	The system HMI shall display a summary of STAM messages sorted by STAM_Id and read/unread status.
Title	Summary of STAM messages

Status	<Validated>
Rationale	The summary of STAM messages shall serve to convey the opinion of each participant regarding the appropriateness of implementing a STAM measure
Category	<HMI>
Validation Method	
Verification Method	<Test>

2280
2281 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0059.0000	<Full>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0060.0000	<Full>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0061.0000	<Full>

2282
2283
2284 [REQ]

Identifier	REQ-13.02.03-TS-D352.1516
Requirement	The system HMI shall display all the information of a selected STAM message.
Title	Information of STAM messages
Status	<Validated>
Rationale	The full text message and the history of any STAM message will help the user on the decision making process of solving hotspot.
Category	<HMI>
Validation Method	
Verification Method	<Test>

2285
2286 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0062.0000	<Full>

2287
2288
2289 [REQ]

Identifier	REQ-13.02.03-TS-D352.1517
Requirement	The system shall display in a dashboard all the relevant information of the STAM processes to efficiently organised the STAM activities
Title	Dashboard display information
Status	<Validated>
Rationale	To organize the STAM activities a dashboard will be use to display relevant information of the STAM process which includes at least: • STAM status. • List of flights. • STAM symbols and labels. • Time line. • Alerts at expiration time-outs. • Extended flight information. • New messages and alerts. • Actors and status of their decisions.
Category	<HMI>
Validation Method	
Verification Method	<Test>

2290
2291 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0098.0000	<Full>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0103.0000	<Full>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0110.0000	<Full>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1518
Requirement	The system shall display in a dashboard three different views: • FMP view. • TFV view. • Hotspot view.
Title	Dashboard views
Status	<Validated>
Rationale	Three views are proposed in the dashboard: • FMP view: All the hotspot and STAM Measures contained in the FMP area of responsibility • TFV view: All the hotspot and STAM Measures contained in the TFV area • Hotspot view: All the STAM Measures contained in the hotspot area
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0110.0000	<Full>

[REQ]

Identifier	REQ-13.02.03-TS-D352.1519
Requirement	The system shall allow the user to control the STAM process modifying the information of the dashboard display
Title	Dashboard STAM control
Status	<Validated>
Rationale	The dashboard provides the user a means to control the activities of the STAM processes including at least the following: • Manage the STAM status. • Initiate STAM coordination. • Time-out alert control. • Private memo and alarms.
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-OSED-0107.0000	<Full>

3.1.4 NM STAM Framework (B2B)

The NM STAM framework supports local level tools by providing STAM process, hotspot definition, STAM analysis, STAM proposal and actor coordination at regional.

The NM framework already exists, but local tools will now use new forms of communication between actors through B2B services provided by the NM under the SWIM environment. These B2B interfaces are detailed here. These services are currently designed to work within a single Function Block to support local tools (internal use only) but have been designed to be SWIM compliant.

NOTE: SVA009. The SWIM Yellow Profile has been applied to this TS.

3.1.4.1 Tactical Updates

[REQ]

Identifier	REQ-13.02.03-TS-D352.3101
Requirement	The NM system shall provide an interface to Sector Configuration Plan Updates via B2B services
Title	
Status	<Validated>
Rationale	This will include: Request to retrieve the sector configuration plan for a given AUA or sector cluster on a given day and replies with sector configuration plan. Request to update the sector configuration plan for a given AUA or sector cluster on a given day and replies with updated sector configuration plan.
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0110	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0120	<Partial>
<SATISFIES>	<Service>	NMCapacityData	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3102
Requirement	The NM system shall provide an interface to Capacity Plan Updates via B2B services
Title	
Status	<Validated>
Rationale	This will include: Request to retrieve the capacity plan for a given traffic volume on a given day and replies with the capacity plan. Request to update the capacity plan for a given traffic volume on a given day and replies with updated capacity plan
Category	<Interface>

Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0038.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0110	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0120	<Partial>
<SATISFIES>	<Service>	NMCapacityData	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3103
Requirement	The NM system shall provide an interface to Traffic Volume Activation Plan Updates via B2B services
Title	
Status	<Validated>
Rationale	This will include: Request to retrieve the traffic volume activation plan for a given traffic volume on a given day and replies with the traffic volume activation plan Request to update the traffic volume activation plan for a given traffic volume on a given day and replies with the updated traffic volume activation plan
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0038.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0010	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0020	<Partial>
<SATISFIES>	<Service>	TrafficVolumeInformation	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3104
Requirement	The NM system shall provide an interface to OTMV Plan Updates via B2B services
Title	
Status	<Validated>

Rationale	This will include: Request to retrieve the OTMV plan for a given (traffic volume, OTMV duration) pair on a given Day and replies with the OTMV plan Request to update the OTMV plan for a given (traffic volume, OTMV duration) pair on a given Day and replies with the updated OTMV plan
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0038.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0010	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0020	<Partial>
<SATISFIES>	<Service>	TrafficVolumeInformation	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3105
Requirement	The NM system shall provide an interface to bulk download of Reference Locations via B2B services
Title	
Status	<Validated>
Rationale	This will include: Request to query complete AIXM Datasets and replies with relevant AIXM data. The service returns a list of datasets available for downloads.
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0038.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Service>	AeronauticalInformationFeature	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3106
Requirement	The NM system shall provide an interface to bulk download of flows via B2B services

Title	
Status	<Validated>
Rationale	This will include: Request to query complete AIXM Datasets and replies with relevant AIXM data. The service returns a list of datasets available for downloads.
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0038.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Service>	AeronauticalInformationFeature	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3107
Requirement	The NM system shall provide an interface to bulk download of Traffic Volumes via B2B services
Title	
Status	<Validated>
Rationale	This will include: Request to query complete AIXM Datasets and replies with relevant AIXM data. The service returns a list of datasets available for downloads.
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0038.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0030	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0040	<Partial>
<SATISFIES>	<Service>	AeronauticalInformationFeature	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3108
Requirement	The NM system shall provide an interface to bulk download of Traffic Volume Sets via B2B services
Title	
Status	<Validated>

Rationale	This will include: Request to query complete AIXM Datasets and replies with relevant AIXM data. The service returns a list of datasets available for downloads.
Category	<Interface>
Validation Method	
Verification Method	<Test>

2341
2342 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0038.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0050	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0060	<Partial>
<SATISFIES>	<Service>	AeronauticalInformationFeature	<Partial>

2343
2344 [REQ]

Identifier	REQ-13.02.03-TS-D352.3109
Requirement	The NM system shall provide an interface to incrementally download datasets via B2B services
Title	
Status	<Validated>
Rationale	This will include: Request to query incremental AIXM Datasets (in the most common scenario the consumer provides the last known UpdateId) and replies with all available Incremental AIXM Datasets newer than the given UpdateId.
Category	<Interface>
Validation Method	
Verification Method	<Test>

2345
2346 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0038.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Service>	AeronauticalInformationFeature	<Partial>

2347
2348 [REQ]

Identifier	REQ-13.02.03-TS-D352.3110
Requirement	The NM system shall provide an interface to Runway Configuration Plan Updates via B2B services
Title	
Status	<Validated>

Rationale	to retrieve the runway configuration plan for a given day and replies with the runway configuration plan Request to update the runway configuration plan for a given day and replies with updated runway configuration plan
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0038.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Service>	AeronauticalInformationFeature	<Partial>

3.1.4.2 Measures

[REQ]

Identifier	REQ-13.02.03-TS-D352.3201
Requirement	The NM system shall provide an interface to Query Regulation Lists via B2B services
Title	
Status	<Validated>
Rationale	This will include: Request to query an NM regulation list, as well as to retrieve the regulation details. This query method allows the caller to select the regulation fields requested in the reply. Replies with the NM regulation list, along with the regulation details
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0041.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0330	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0340	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0350	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0360	<Partial>

<SATISFIES>	<Service>	STAMMeasures	<Partial>

2357
2358 [REQ]

Identifier	REQ-13.02.03-TS-D352.3202
Requirement	The NM system shall provide an interface to Query Regulation Details via B2B services
Title	
Status	<Validated>
Rationale	This will include: Request to query an NM regulation list, as well as to retrieve the regulation details. This query method allows the caller to select the regulation fields requested in the reply. Replies with the NM regulation list, along with the regulation details
Category	<Interface>
Validation Method	
Verification Method	<Test>

2359
2360 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0041.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0330	<Partial>
<SATISFIES>	<Service>	STAMMeasures	<Partial>

2361
2362

2363 3.1.4.3 Flights

2364 [REQ]

Identifier	REQ-13.02.03-TS-D352.3301
Requirement	The NM system shall provide an interface to query flight lists via B2B services
Title	
Status	<Validated>

Rationale	This will include: Request to query a flight plan list. Each item in the flight plan list is made of: a) The summary of the last valid flight plan, if it exists. b) The list of invalid filing summaries that are currently under manual correction by an NM operator. Replies with valid flight plans and invalid filings matching the query fields. Flight lists can be queried based on: Flight Keys Aircraft operator Aerodrome Aerodrome set Airspace Point Traffic Volume Measure Hotspot
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0039.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3604	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0070	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0080	<Partial>
<SATISFIES>	<Service>	NMFlightData	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3302
Requirement	The NM system shall provide an interface to query flight details via B2B services
Title	
Status	<Validated>
Rationale	This will include: Request to selectively retrieve all or part of the information regarding a single flight, i.e.: a) The flight plan (FlightPlan), and/or b) The flight plan history (FlightPlanHistory), and/or c) The flight (Flight) This replies with information for the single flight
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0039.0000	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3604	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0250	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0260	<Partial>
<SATISFIES>	<Service>	NMFlightData	<Partial>

3.1.4.4 Occupancy Counts

[REQ]

Identifier	REQ-13.02.03-TS-D352.3401
Requirement	The NM system shall provide an interface to retrieve traffic counts via B2B services
Title	
Status	<Validated>
Rationale	This will include: Request to retrieve traffic counts and replies with traffic counts Trafiic counts can be queried based on: aircraft operator aerodrome aerodrome set airspace point traffic volume
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0038.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0090	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0100	<Partial>
<SATISFIES>	<Service>	NMFlightData	<Partial>

3.1.4.5 Hotspot Management

[REQ]

Identifier	REQ-13.02.03-TS-D352.3501
Requirement	The NM system shall provide an interface to STAM measure Updates via B2B services
Title	
Status	<Validated>
Rationale	This will include: Request to create a hotspot for a given period and traffic volume and eplies with new hotspots. Request to update hotspot information and replies with updated hotspots.
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0038.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0130	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0140	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0150	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0160	<Partial>
<SATISFIES>	<Service>	HotspotManagement	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3502
Requirement	The NM system shall provide an interface to Force CTOT (delay flight) via B2B services
Title	
Status	<Validated>
Rationale	This will include: Request to Merge hotspots, this is automatic for adjacent periods with same properties
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0038.0000	<Partial>

<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0170	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0180	<Partial>
<SATISFIES>	<Service>	HotspotManagement	<Partial>

2387
2388 [REQ]

Identifier	REQ-13.02.03-TS-D352.3503
Requirement	The NM system shall provide an interface to query regulations via B2B services
Title	
Status	<Validated>
Rationale	This will include: Request to Delete or Interrupt Hotspot Delete is update with Null but data in the past cannot be
Category	<Interface>
Validation Method	
Verification Method	<Test>

2389
2390 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0038.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0190	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0200	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0210	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0220	<Partial>
<SATISFIES>	<Service>	HotspotManagement	<Partial>

2391
2392 [REQ]

Identifier	REQ-13.02.03-TS-D352.3504
Requirement	The NM system shall provide an interface to query and manage proposals via B2B services
Title	
Status	<Validated>
Rationale	This will include: Request to query a list of hotspots per actor. This query method allows the caller to select the hotspot fields requested in the reply. If no filter is applied the result will be list of hotspots, their related traffic volume id and the period. Replies with Hotspot List and details.
Category	<Interface>
Validation Method	
Verification Method	<Test>

2393
2394 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0038.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0230	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0240	<Partial>
<SATISFIES>	<Service>	HotspotManagement	<Partial>

2395

2396 ### 3.1.4.6 STAM measures

2397 [REQ]

Identifier	REQ-13.02.03-TS-D352.3601
Requirement	The NM system shall provide an interface to STAM measure Updates via B2B services
Title	
Status	<Validated>
Rationale	This will include: Request (and replies) to create/update and cancel measures
Category	<Interface>
Validation Method	
Verification Method	<Test>

2398

2399 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0039.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0270	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0280	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0290	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0300	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0310	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0320	<Partial>
<SATISFIES>	<Service>	STAMMeasures	<Partial>

2400

2401 [REQ]

Identifier	REQ-13.02.03-TS-D352.3602
Requirement	The NM system shall provide an interface to Force CTOT (delay flight) via B2B services
Title	
Status	<Validated>

Rationale	This will provide a means to delay flights on the ground.
Category	<Interface>
Validation Method	
Verification Method	<Test>

2402
2403 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0039.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0370	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0380	<Partial>
<SATISFIES>	<Service>	STAMMeasures	<Partial>

2404
2405 [REQ]

Identifier	REQ-13.02.03-TS-D352.3603
Requirement	The NM system shall provide an interface to query regulations via B2B services
Title	
Status	<Validated>
Rationale	This will include: Request to retrieve regulation list for flight and eplies with regulation lists
Category	<Interface>
Validation Method	
Verification Method	<Test>

2406
2407 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0039.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0330	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0340	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0350	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0360	<Partial>
<SATISFIES>	<Service>	STAMMeasures	<Partial>

2408
2409 [REQ]

Identifier	REQ-13.02.03-TS-D352.3604
Requirement	The NM system shall provide an interface to query and manage proposals via B2B services
Title	
Status	<Validated>

Rationale	This will include: Request to retrieve proposal list for flight and replies with proposal list Request to retrieve regulation filling proposal for flight and replies with proposal Request to update regulation filling proposal for flight and replies with updated proposal Request to cancel regulation filling proposal for flight
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0039.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0330	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0340	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0350	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0360	<Partial>
<SATISFIES>	<Service>	STAMMeasures	<Partial>

3.1.4.7 M-CDM measures

[REQ]

Identifier	REQ-13.02.03-TS-D352.3701
Requirement	The NM system shall provide an interface to query MCDM information via B2B services
Title	
Status	<Validated>
Rationale	This will include: Request to query a list of MCDM related summary information, as well as to retrieve MCDM details. This query method allows the caller to select the topic fields requested in the reply. Replies with summary information and topic details
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0040.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0390	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0400	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0410	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0420	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0430	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0440	<Partial>
<SATISFIES>	<Service>	M-CDMMeasure	<Partial>

2417
2418 [REQ]

Identifier	REQ-13.02.03-TS-D352.3702
Requirement	The NM system shall provide an interface to Cast a vote via B2B services
Title	
Status	<Validated>
Rationale	This will include: Request to update a MCDM topic (e.g cast a vote or change the roles and approvals mappings for user). Replies with updated topics
Category	<Interface>
Validation Method	
Verification Method	<Test>

2419
2420 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0040.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0450	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0460	<Partial>
<SATISFIES>	<Service>	M-CDMMeasure	<Partial>

2421
2422 [REQ]

Identifier	REQ-13.02.03-TS-D352.3703
Requirement	The NM system shall provide an interface to update MCDM status via B2B services
Title	
Status	<Validated>
Rationale	This will include: Request to update a MCDM topic (e.g cast a vote or change the roles and approvals mappings for user). Replies with updated topics
Category	<Interface>
Validation Method	

Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0040.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0470	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0480	<Partial>
<SATISFIES>	<Service>	M-CDMMeasure	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3704
Requirement	The NM system shall provide an interface to manage MCDM roles and actors via B2B services
Title	
Status	<Validated>
Rationale	This will include: Request to update a MCDM topic (e.g cast a vote or change the roles and approvals mappings for user). Replies with updated topics
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0040.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0490	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0500	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0510	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0520	<Partial>
<SATISFIES>	<Service>	M-CDMMeasure	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3705
Requirement	The NM system shall provide an interface to add MCDM comments via B2B services
Title	
Status	<Validated>

Rationale	This will include: Request to update a MCDM topic (e.g cast a vote or change the roles and approvals mappings for user). Replies with updated topics
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0040.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0530	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0540	<Partial>
<SATISFIES>	<Service>	M-CDMMeasure	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3706
Requirement	The NM system shall provide an interface to query remaining MCDM tasks via B2B services
Title	
Status	<Validated>
Rationale	This will include: Request to update a MCDM topic (e.g cast a vote or change the roles and approvals mappings for user). Replies with updated topics
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0040.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0550	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0560	<Partial>
<SATISFIES>	<Service>	M-CDMMeasure	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3707

Requirement	The NM system shall provide an interface to edit MCDM deadlines via B2B services
Title	
Status	<Validated>
Rationale	This will include: Request to update a MCDM topic (e.g cast a vote or change the roles and approvals mappings for user). Replies with updated topics
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0040.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0570	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0580	<Partial>
<SATISFIES>	<Service>	M-CDMMeasure	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3708
Requirement	The NM system shall provide an interface to query MCDM messages via B2B services
Title	
Status	<Validated>
Rationale	This will include: Request to update a MCDM topic (e.g cast a vote or change the roles and approvals mappings for user). Replies with updated topics
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.05-SPR-0040.0000	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0430	<Partial>
<SATISFIES>	<Information Exchange Requirement>	IER-13.02.03-OSED-DCB1.0440	<Partial>
<SATISFIES>	<Service>	M-CDMMeasure	<Partial>

2445

2446

2447 #### 3.1.4.7.1 Messages

2448 [REQ]

Identifier	REQ-13.02.03-TS-D352.3901
Requirement	The information provided by the message SectorConfigurationPlanRetrievalRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

2449

2450 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3101	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

2451

2452 [REQ]

Identifier	REQ-13.02.03-TS-D352.3902
Requirement	The information provided by the message SectorConfigurationPlanRetrievalReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

2453

2454 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3101	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

2455

2456 [REQ]

Identifier	REQ-13.02.03-TS-D352.3903
Requirement	The information provided by the message SectorConfigurationPlanUpdateRequest shall be expressed using format WS-N WSDL and XSD
Title	

Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

2457
2458 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3101	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

2459
2460 [REQ]

Identifier	REQ-13.02.03-TS-D352.3904
Requirement	The information provided by the message SectorConfigurationPlanUpdateReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

2461
2462 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3101	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

2463
2464 [REQ]

Identifier	REQ-13.02.03-TS-D352.3905
Requirement	The information provided by the message CapacityPlanRetrievalRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

2465
2466 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3102	<Partial>

<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

2467
2468 [REQ]

Identifier	REQ-13.02.03-TS-D352.3906
Requirement	The information provided by the message CapacityPlanRetrievalReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

2469
2470 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3102	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

2471
2472 [REQ]

Identifier	REQ-13.02.03-TS-D352.3907
Requirement	The information provided by the message CapacityPlanUpdateRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

2473
2474 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3102	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

2475
2476 [REQ]

Identifier	REQ-13.02.03-TS-D352.3908
Requirement	The information provided by the message CapacityPlanUpdateReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

2477
2478 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3102	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

2479
2480 [REQ]

Identifier	REQ-13.02.03-TS-D352.3909
Requirement	The information provided by the message TrafficVolumeActivationPlanRetrievalRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

2481
2482 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3103	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

2483
2484 [REQ]

Identifier	REQ-13.02.03-TS-D352.3910
Requirement	The information provided by the message TrafficVolumeActivationPlanRetrievalReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

2485
2486 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3103	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

2487
2488 [REQ]

Identifier	REQ-13.02.03-TS-D352.3911

Requirement	The information provided by the message TrafficVolumeActivationPlanUpdateRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3103	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3912
Requirement	The information provided by the message TrafficVolumeActivationPlanUpdateReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3103	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3913
Requirement	The information provided by the message OTMVPlanRetrievalRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3104	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3914
Requirement	The information provided by the message OTMVPlanRetrievalReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3104	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3915
Requirement	The information provided by the message OTMVPlanUpdateRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3104	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3916
Requirement	The information provided by the message OTMVPlanUpdateReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>

Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3104	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3917
Requirement	The information provided by the message CompleteAIXMDatasetRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3105	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3106	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3107	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3108	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3918
Requirement	The information provided by the message CompleteAIXMDatasetReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A

<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3105	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3106	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3107	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3108	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

2519
2520 [REQ]

Identifier	REQ-13.02.03-TS-D352.3919
Requirement	The information provided by the message IncrementalAIXMDatasetRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

2521
2522 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3109	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

2523
2524 [REQ]

Identifier	REQ-13.02.03-TS-D352.3920
Requirement	The information provided by the message IncrementalAIXMDatasetReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

2525
2526 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3109	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

2527
2528 [REQ]

Identifier	REQ-13.02.03-TS-D352.3921
Requirement	The information provided by the message RunwayConfigurationPlanRetrievalRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>

Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3110	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3922
Requirement	The information provided by the message RunwayConfigurationPlanRetrievalReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3110	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3923
Requirement	The information provided by the message RunwayConfigurationPlanUpdateRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3110	<Partial>

<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3924
Requirement	The information provided by the message RunwayConfigurationPlanUpdateReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3110	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3925
Requirement	The information provided by the message RegulationListRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3201	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3202	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3926
Requirement	The information provided by the message RegulationListReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>

Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3201	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3202	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3927
Requirement	The information provided by the message FlightPlanListRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3301	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3928
Requirement	The information provided by the message FlightPlanListReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3301	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3929
Requirement	The information provided by the message FlightListByKeysRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3301	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3930
Requirement	The information provided by the message FlightListByKeysReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3301	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3931
Requirement	The information provided by the message FlightListByAircraftOperatorRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3301	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

2571
2572 [REQ]

Identifier	REQ-13.02.03-TS-D352.3932
Requirement	The information provided by the message FlightListByAircraftOperatorReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

2573
2574 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3301	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

2575
2576 [REQ]

Identifier	REQ-13.02.03-TS-D352.3933
Requirement	The information provided by the message FlightListByAerodromeRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

2577
2578 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3301	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

2579
2580 [REQ]

Identifier	REQ-13.02.03-TS-D352.3934
Requirement	The information provided by the message FlightListByAerodromeReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304

Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3301	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3935
Requirement	The information provided by the message FlightListByAerodromeSetRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3301	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3936
Requirement	The information provided by the message FlightListByAerodromeSetReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3301	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3937
Requirement	The information provided by the message FlightListByAirspaceRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3301	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3938
Requirement	The information provided by the message FlightListByAirspaceReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3301	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3939
Requirement	The information provided by the message FlightListByPointRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3301	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

2603
2604 [REQ]

Identifier	REQ-13.02.03-TS-D352.3940
Requirement	The information provided by the message FlightListByPointReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

2605
2606 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3301	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

2607
2608 [REQ]

Identifier	REQ-13.02.03-TS-D352.3941
Requirement	The information provided by the message FlightListByTrafficVolumeRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

2609
2610 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3301	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

2611
2612 [REQ]

Identifier	REQ-13.02.03-TS-D352.3942
Requirement	The information provided by the message FlightListByTrafficVolumeReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304

Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3301	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3943
Requirement	The information provided by the message FlightListByMeasureRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3301	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3944
Requirement	The information provided by the message FlightListByMeasureReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3301	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3945
Requirement	The information provided by the message FlightListByHotspotRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3301	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3946
Requirement	The information provided by the message FlightListByHotspotReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3301	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3947
Requirement	The information provided by the message FlightRetrievalRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3302	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

2635
2636 [REQ]

Identifier	REQ-13.02.03-TS-D352.3948
Requirement	The information provided by the message FlightRetrievalReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

2637
2638 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3302	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

2639
2640 [REQ]

Identifier	REQ-13.02.03-TS-D352.3949
Requirement	The information provided by the message TrafficCountsByAircraftOperatorRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

2641
2642 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3401	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

2643
2644 [REQ]

Identifier	REQ-13.02.03-TS-D352.3950
Requirement	The information provided by the message TrafficCountsByAircraftOperatorReply shall be expressed using format WS-N WSDL and XSD
Title	

Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3401	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3951
Requirement	The information provided by the message TrafficCountsByAerodromeRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3401	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3952
Requirement	The information provided by the message TrafficCountsByAerodromeReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3401	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

2655
2656 [REQ]

Identifier	REQ-13.02.03-TS-D352.3953
Requirement	The information provided by the message TrafficCountsByAerodromeSetRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

2657
2658 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3401	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

2659
2660 [REQ]

Identifier	REQ-13.02.03-TS-D352.3954
Requirement	The information provided by the message TrafficCountsByAerodromeSetReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

2661
2662 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3401	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

2663
2664 [REQ]

Identifier	REQ-13.02.03-TS-D352.3955
Requirement	The information provided by the message TrafficCountsByAirspaceRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

2665
2666 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3401	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

2667
2668 [REQ]

Identifier	REQ-13.02.03-TS-D352.3956
Requirement	The information provided by the message TrafficCountsByAirspaceReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

2669
2670 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3401	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

2671
2672 [REQ]

Identifier	REQ-13.02.03-TS-D352.3957
Requirement	The information provided by the message TrafficCountsByPointRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

2673
2674 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3401	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

2675
2676 [REQ]

Identifier	REQ-13.02.03-TS-D352.3958
Requirement	The information provided by the message TrafficCountsByPointReply shall be expressed using format WS-N WSDL and XSD

Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3401	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3959
Requirement	The information provided by the message TrafficCountsByTrafficVolumeRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3401	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3960
Requirement	The information provided by the message TrafficCountsByTrafficVolumeReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A

<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3401	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3961
Requirement	The information provided by the message HotspotPlanCreationRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3501	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3962
Requirement	The information provided by the message HotspotPlanCreationReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3501	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3963
Requirement	The information provided by the message HotspotPlanUpdateRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>

Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3501	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3502	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3503	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3964
Requirement	The information provided by the message HotspotPlanUpdateReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3501	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3502	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3503	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3965
Requirement	The information provided by the message HotspotListRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3504	<Partial>

<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

2707
2708 [REQ]

Identifier	REQ-13.02.03-TS-D352.3966
Requirement	The information provided by the message HotspotListReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

2709
2710 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3504	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

2711
2712 [REQ]

Identifier	REQ-13.02.03-TS-D352.3967
Requirement	The information provided by the message RegulationCreationRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

2713
2714 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3601	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

2715
2716 [REQ]

Identifier	REQ-13.02.03-TS-D352.3968
Requirement	The information provided by the message RegulationCreationReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3601	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3969
Requirement	The information provided by the message RegulationUpdateRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3601	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3970
Requirement	The information provided by the message RegulationUpdateReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3601	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3971
Requirement	The information provided by the message RegulationForceDelayRequest shall be expressed using format WS-N WSDL and XSD

Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3602	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3972
Requirement	The information provided by the message RegulationForceDelayReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3602	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3973
Requirement	The information provided by the message RegulationListRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A

<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3603	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3974
Requirement	The information provided by the message RegulationListReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3603	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3975
Requirement	The information provided by the message RegulationProposalListRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3604	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3976
Requirement	The information provided by the message RegulationProposalListReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	

Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3604	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3977
Requirement	The information provided by the message RegulationProposalFilingRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3604	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3978
Requirement	The information provided by the message RegulationProposalFilingReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3604	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3979

Requirement	The information provided by the message RegulationProposalUpdateRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3604	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3980
Requirement	The information provided by the message RegulationProposalUpdateReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3604	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.3981
Requirement	The information provided by the message RegulationProposalRevokeRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A

<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3604	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

2771
2772 [REQ]

Identifier	REQ-13.02.03-TS-D352.3982
Requirement	The information provided by the message RegulationProposalRevokeReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

2773
2774 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3604	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

2775
2776 [REQ]

Identifier	REQ-13.02.03-TS-D352.3983
Requirement	The information provided by the message McdmTopicListRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

2777
2778 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3701	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3702	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3703	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3704	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3705	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3706	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

2779
2780 [REQ]

Identifier	REQ-13.02.03-TS-D352.3984

Requirement	The information provided by the message McdmTopicListReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

2781
2782 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3701	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3702	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3703	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3704	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3705	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3706	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

2783
2784 [REQ]

Identifier	REQ-13.02.03-TS-D352.3985
Requirement	The information provided by the message McdmTopicUpdateRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

2785
2786 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3701	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3702	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3703	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3704	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3705	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3706	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

2787
2788 [REQ]

Identifier	REQ-13.02.03-TS-D352.3986
Requirement	The information provided by the message McdmTopicUpdateReply shall be expressed using format WS-N WSDL and XSD
Title	

Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

2789
2790 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3701	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3702	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3703	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3704	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3705	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3706	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

2791
2792 [REQ]

Identifier	REQ-13.02.03-TS-D352.3987
Requirement	The information provided by the message McdmTopicMessageRetrievalRequest shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304
Category	<Interface>
Validation Method	
Verification Method	<Test>

2793
2794 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3701	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3702	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3703	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3704	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3705	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3706	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

2795
2796 [REQ]

Identifier	REQ-13.02.03-TS-D352.3988
Requirement	The information provided by the message McdmTopicMessageRetrievalReply shall be expressed using format WS-N WSDL and XSD
Title	
Status	<Validated>
Rationale	SWIM-TI binding: REQ-14.01.04-TS-0901.0304

Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3701	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3702	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3703	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3704	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3705	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-13.02.03-TS-D352.3706	<Partial>
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

3.1.5 AOP-NOP integration

[REQ]

Identifier	REQ-07.06.01-TS-AOP1.0500
Requirement	ETFMS shall be able to receive tactical airport capacity updates (including the reason) via a B2B service from an Airport. ETFMS shall update the tactical capacities with the supplied Airport Capacity. ETFMS shall use the tactical capacities for traffic monitoring and detection of any DCB unbalance. NOP shall display and provide B2B access to tactical airport capacity updates.
Title	Airport tactical capacities
Status	<Validated>
Rationale	Up-to-date airport capacity will allow the Network Manager and network actors to evaluate possible capacity constraints at the network airports (ground nodes) in combination with airspace sector capacity. NOP portal and CHMI already offered the possibility to update capacities but is not used as much as it could as a manual entry implies some effort. It is expected that the automation with B2B will increase the capacity update exchanges, better reflect the airport capacity and consequently will support better DCB decisions and better planning. Already implemented in OPS.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Airport Operations Plan Management	N/A
<ALLOCATED_TO>	<Functional block>	Network Operations Plan Management	N/A
<ALLOCATED TO>	<Project>	07.06.01	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-AOP1.0010	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-01a	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-02a	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-03a	<Partial>

<SATISFIES>	<Enabler>	SWIM-APS-04a	<Partial>
<SATISFIES>	<Enabler>	SWIM-INFR-05a	<Partial>
<SATISFIES>	<Enabler>	SWIM-SUPT-01a	<Partial>
<SATISFIES>	<Enabler>	SWIM-SUPT-03a	<Partial>
<SATISFIES>	<Service>	AirspaceStructure service :: updateRunwayConfigurationPlan	<Partial>

2805

2806 [REQ]

Identifier	REQ-07.06.01-TS-AOP1.0550
Requirement	The flight details provided by NOP shall include the flight specific data provided by the airport.
Title	Flight Specific Data from airport
Status	<Validated>
Rationale	NOP tools allowing to get access to the airport related information specific to a flight (HMI and/or B2B) . This includes time estimates and actual values at specific milestones of the flight: off-block, take off, landing, taxing, in-block ... as well as statues like entered-TMA, holding and other information like the SID/STAR/runway, target time of arrival at IAF, arrival terminal and next leg.
Category	<Functional>
Validation Method	
Verification Method	<Test>

2807

2808 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Airport Operations Plan Management	N/A
<ALLOCATED TO>	<Functional block>	Network Operations Plan Management	N/A
<ALLOCATED TO>	<Project>	07.06.01	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-AOP1.0050	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-AOP1.0051	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-01a	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-02a	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-03a	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-04a	<Partial>
<SATISFIES>	<Enabler>	SWIM-INFR-05a	<Partial>
<SATISFIES>	<Enabler>	SWIM-SUPT-01a	<Partial>
<SATISFIES>	<Enabler>	SWIM-SUPT-03a	<Partial>
<SATISFIES>	<Service>	FligthManagement service :: FlightDetails	<Partial>

2809

2810 [REQ]

Identifier	REQ-07.06.01-TS-AOP1.0560
Requirement	The flight details provided by NOP shall include the previous and next flight leg identifiers to allow the user to interlink the flights belonging to the same leg.
Title	Interlink trajectories access
Status	<Validated>
Rationale	Authorized user shall have access to the list of flights (or any selection thereof) transiting at any airport of the European ATM network. Information shall include arrival trajectories and related departure trajectories. This includes information on interlinked (ATV) arrivals and departures thanks to the previous and next flight leg id. This is required to facilitate Airspace Users' monitoring of operations and to facilitate in post-ops the analysis of knock-on effects due to arrival delays/deviation from plan.

Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Airport Operations Plan Management	N/A
<ALLOCATED_TO>	<Functional block>	Network Operations Plan Management	N/A
<ALLOCATED TO>	<Project>	07.06.01	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-AOP1.0040	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-01a	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-02a	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-03a	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-04a	<Partial>
<SATISFIES>	<Enabler>	SWIM-INFR-05a	<Partial>
<SATISFIES>	<Enabler>	SWIM-SUPT-01a	<Partial>
<SATISFIES>	<Enabler>	SWIM-SUPT-03a	<Partial>
<SATISFIES>	<Service>	FligthManagement service :: FlightDetails	<Partial>

[REQ]

Identifier	REQ-07.06.01-TS-AOP1.0570
Requirement	The flight details provided by NOP shall include flight progress information. Flight Progress Information is calculated by ETFMS and includes flight status and profile estimates updated as the flight evolves in time.Especially covering the airborne phase but not exclusively.
Title	Fflight Progress Information
Status	<Validated>
Rationale	NOP tools allowing to get access to the flight progress information (NOP portal and B2B) . Currently the FUM message sent from ETFMS via AFTN/SITA and displayed in NOP provides flight progress information, also some partial information is given via B2B. This will be completed and extended.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Airport Operations Plan Management	N/A
<ALLOCATED TO>	<Functional block>	Network Operations Plan Management	N/A
<ALLOCATED TO>	<Project>	07.06.01	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-AOP1.0020	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-01a	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-02a	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-03a	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-04a	<Partial>
<SATISFIES>	<Enabler>	SWIM-INFR-05a	<Partial>
<SATISFIES>	<Enabler>	SWIM-SUPT-01a	<Partial>
<SATISFIES>	<Enabler>	SWIM-SUPT-03a	<Partial>
<SATISFIES>	<Service>	FligthManagement service :: FlightDetails	<Partial>

[REQ]

Identifier	REQ-07.06.01-TS-AOP1.0001
Requirement	ETFMs shall be able to receive departure planning information from an airport via B2B
Title	DPI-Interoperability
Status	<Validated>
Rationale	The objective of this requirement is the technical interoperability between Airports - NM via B2B. The new B2B flight service "Extended DPI" will include the fields exchanged with current AFTN-SITA DPI and more, see the Fit Criterion column. NM systems should be able to receive the required airport data via the "Extended DPI" B2B WS and ETFMS should be able to write these data in the OPLOG. The explotation of ETFMS of the recived DPI data in not included in this CR.
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Airport Operations Plan Management	N/A
<ALLOCATED TO>	<Functional block>	Network Operations Plan Management	N/A
<ALLOCATED_TO>	<Project>	07.06.01	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-AOP1.0050	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-01a	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-02a	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-03a	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-04a	<Partial>
<SATISFIES>	<Enabler>	SWIM-INFR-05a	<Partial>
<SATISFIES>	<Enabler>	SWIM-SUPT-01a	<Partial>
<SATISFIES>	<Enabler>	SWIM-SUPT-03a	<Partial>
<SATISFIES>	<Service>	FligthManagement service :: earlyDPI	<Partial>
<SATISFIES>	<Service>	FligthManagement service :: targetDPITarget	<Partial>
<SATISFIES>	<Service>	FligthManagement service :: targetDPISequence	<Partial>
<SATISFIES>	<Service>	FligthManagement service :: atcDPI	<Partial>
<SATISFIES>	<Service>	FligthManagement service :: cancelDPI	<Partial>

[REQ]

Identifier	REQ-07.06.01-TS-AOP1.0200
Requirement	ETFMS shall parse the flight specific DPI, API received in the DPI B2B service from origin AOP. At first initiation and also at each update, ETFMS shall (re-)calculates the flight profiles for affected flights. This includes recalculating the ELDTs The airspace and aerodrome traffic counts shall be updated accordingly. See Fit Criterion for ETFMS' action associated to every field of the DPI service received.
Title	DPI-data explotation
Status	<Validated>

Rationale	The collaboration between airports and Network is performed nowadays for coordinated and advance tower airports via CDM AFTN-SITA. CDM, although providing a good benefit for both NM and airports, only covers the exchange of a limited set of data and only some airports are coordinated airports. The objective of this CR is to extend the data exchange from current DPI to extended DPI and to provide B2B WS for exchanging DPI to make AOP-NOP affordable to all airports so potewntially increase the number of coordinated airports.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Airport Operations Plan Management	N/A
<ALLOCATED TO>	<Functional block>	Network Operations Plan Management	N/A
<ALLOCATED_TO>	<Project>	07.06.01	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-AOP1.0050	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-01a	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-02a	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-03a	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-04a	<Partial>
<SATISFIES>	<Enabler>	SWIM-INFR-05a	<Partial>
<SATISFIES>	<Enabler>	SWIM-SUPT-01a	<Partial>
<SATISFIES>	<Enabler>	SWIM-SUPT-03a	<Partial>
<SATISFIES>	<Service>	FligthManagement service :: earlyDPI	<Partial>
<SATISFIES>	<Service>	FligthManagement service :: targetDPITarget	<Partial>
<SATISFIES>	<Service>	FligthManagement service :: targetDPISequence	<Partial>
<SATISFIES>	<Service>	FligthManagement service :: atcDPI	<Partial>
<SATISFIES>	<Service>	FligthManagement service :: cancelDPI	<Partial>

[REQ]

Identifier	REQ-07.06.01-TS-AOP1.0100
Requirement	At first initiation and also at each update, the ETFMS shall (re-)calculate the flight profiles for affected flights. This includes recalculating the ELDTs.
Title	API-Interoperability
Status	<Validated>
Rationale	The objective of this CR is the technical interoperability between Airports - NM via B2B. The new B2B flight service " API" will include the fields described in the Fit Criterion column. NM systems should be able to receive the required airport data via the "API" B2B WS and ETFMS should be able to write these data in the OPLOG. The explotation of ETFMS of the recived API data in not included in this CR.
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Airport Operations Plan Management	N/A
<ALLOCATED_TO>	<Functional block>	Network Operations Plan Management	N/A

<ALLOCATED_TO>	<Project>	07.06.01	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-AOP1.0051	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-01a	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-02a	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-03a	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-04a	<Partial>
<SATISFIES>	<Enabler>	SWIM-INFR-05a	<Partial>
<SATISFIES>	<Enabler>	SWIM-SUPT-01a	<Partial>
<SATISFIES>	<Enabler>	SWIM-SUPT-03a	<Partial>
<SATISFIES>	<Service>	FligthManagement service :: API	<Partial>

[REQ]

Identifier	REQ-07.06.01-TS-AOP1.0300
Requirement	ETFMS shall parse the flight specific API received in the API B2B service from destination AOP. At first initiation and also at each update, ETFMS shall (re-)calculate the flight profiles for affected flights. This includes recalculating the ELDTs The airspace and aerodrome traffic counts shall be updated accordingly. See Fit Criterion for ETFMS' action associated to every field of the API service received.
Title	API-data explotation
Status	<Validated>
Rationale	The NOP shall provide access to arrival planning informationt flight specific, for a flight arriving at any airport of the European ATM network on the day of operations (short-term planning, execution). This includes time estimates and actual values at specific milestones of the flight: landing, taxing, in-block ... as well as statues like entered-TMA, holding and other information like the STAR/runway, target time of arrivalor at IAF, arrival terminal and next leg. The flight specific arrival/departure information will allow the NOP to calculate the flight profile (4D-trajectory) with these more detailed depature and arrival times and data provided by the airport. This will result in more accurate NOP profiles and more predictibility as it will improve the traffic demand accuracy and DCB process. By NOP providing access to the improved flight profiles (e.g. more predictible ELDT), NOP is supporting a better planning for the air[port ATV (airport transit view) and airspace users. In the case of API data the provided by the airport and use for the flight profile calculation includes time estimates and actual values at specific milestones of the flight: landing, taxing, in-block ... as well as statues like entered-TMA, holding and other information like the STAR/runway, target time of arrivalor at IAF, arrival terminal and next leg.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Airport Operations Plan Management	N/A
<ALLOCATED_TO>	<Functional block>	Network Operations Plan Management	N/A
<ALLOCATED TO>	<Project>	07.06.01	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-AOP1.0051	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-01a	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-02a	<Partial>

<SATISFIES>	<Enabler>	SWIM-APS-03a	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-04a	<Partial>
<SATISFIES>	<Enabler>	SWIM-INFR-05a	<Partial>
<SATISFIES>	<Enabler>	SWIM-SUPT-01a	<Partial>
<SATISFIES>	<Enabler>	SWIM-SUPT-03a	<Partial>
<SATISFIES>	<Service>	FligthManagement service :: API	<Partial>

[REQ]

Identifier	REQ-07.06.01-TS-AOP1.0400
Requirement	The NOP portal shall display the airport event planning provided by the airport.
Title	Airport Event Information
Status	<In Progress>
Rationale	The airport will provide NOP with Event Planing Information and Contingency Plan that contains elements like the event kind, probability, area or process of airport impacted, expectted recovery scenario and possible aircraft type resrictions. This information will allow NMOC to establish the network impacts of a sudden or planned capacity changes or reductions due to the event. NOP will share the airport event planning, the constraints and the network impact. Airspace Users would be able to anticipate any changing conditions as early as possible they could adjust flight plans , transfer passengers re-routed or additional fuel taken to allow for a longer period of holding, as required. It was set out the scope of the validation, not covered => left for SESAR2020
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Airport Operations Plan Management	N/A
<ALLOCATED_TO>	<Functional block>	Network Operations Plan Management	N/A
<ALLOCATED TO>	<Project>	07.06.01	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-AOP1.0060	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-01a	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-02a	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-03a	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-04a	<Partial>
<SATISFIES>	<Enabler>	SWIM-INFR-05a	<Partial>
<SATISFIES>	<Enabler>	SWIM-SUPT-01a	<Partial>
<SATISFIES>	<Enabler>	SWIM-SUPT-03a	<Partial>
<SATISFIES>	<Service>	NetworkOperationPlan	<Partial>

3.1.6 MET-NOP integration

[REQ]

Identifier	REQ-07.06.01-TS-MET1.0100
Requirement	The WxSS should receive the 4DwxCube provider data forecast for an horizon of 24 hours and the updates provided every 6 hours.
Title	Reception of 4DWxC forecast and updates
Status	<Validated>

Rationale	Network operations (and performance) are sensitive to the influence of major capacity-impacting weather phenomena in en route airspace, in terminal areas and at airports. The 4DWxC should be an accurate source for weather phenomena and the NOP would use it. After getting early information on how weather can affect the network (e.g. airport bad weather impact on en route sectors), and as weather is continuously changing it is important to continuously refine and update the weather data with the latest information. The NOP shall offer access to: - the list of significant weather phenomena, - the weather forecast (if one available) at any airport or area of the European ATM network, - the associated capabilities (i.e. capacity reductions when applicable) in the specified time period, - the mitigation actions put in place, - any additional information that support the mitigation actions decision.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Network Operations Plan Management	N/A
<ALLOCATED_TO>	<Project>	07.06.01	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.0040	<Partial>
<SATISFIES>	<Enabler>	METEO-06b	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-04a	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteForecast	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteObservation	<Partial>

[REQ]

Identifier	REQ-07.06.01-TS-MET1.0110
Requirement	The WxSS should receive the 4DwxCube provider observation data for current time and the updates provided.
Title	Reception of 4DWxC current time data and updates
Status	<In Progress>
Rationale	The 4DWxC should be an accurate source for weather phenomena and the NOP would use it. The weather on day of operations shall be made available on airport/ACC sector level to enable the evaluation of the effect at sector level and on Airport operation and the relation to the identified AoI. It was set out of the scoppe of this validationas it was too much data to handle.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Network Operations Plan Management	N/A
<ALLOCATED_TO>	<Project>	07.06.01	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.0041	<Partial>

<SATISFIES>	<Enabler>	METEO-06b	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-04a	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteForecast	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteObservation	<Partial>

2846
2847 [REQ]

Identifier	REQ-07.06.01-TS-MET1.0120
Requirement	The WxSS should receive the 4DwxCube data provided in grib2 format or a similar format.
Title	Reception of 4DWxC format
Status	<Validated>
Rationale	The 4DWxC should be an accurate source for weather phenomena and the NOP would use it. The weather system intends to provide a display and to use the weather data collected, processed and provided by the 4DWxC using its defined format.
Category	<Functional>
Validation Method	
Verification Method	<Test>

2848
2849 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Network Operations Plan Management	N/A
<ALLOCATED_TO>	<Project>	07.06.01	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.0040	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.0041	<Partial>
<SATISFIES>	<Enabler>	METEO-06b	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-04a	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteForecast	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteObservation	<Partial>

2850
2851 [REQ]

Identifier	REQ-07.06.01-TS-MET1.0130
Requirement	The WxSS should receive the 4DwxCube data in relation to Turbulence/Convection/Icing at a given time per grid of 5Km * 5Km and with a bottom and top altitudes provided by NOP.
Title	Reception of 4DWxC granularity
Status	<Validated>
Rationale	The 4DWxC should be an accurate source for weather phenomena and the NOP would use it. The weather system intends to provide a display and to use the weather data collected, processed and provided by the 4DWxC using its defined granularity.
Category	<Functional>
Validation Method	
Verification Method	<Test>

2852
2853 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Network Operations Plan Management	N/A
<ALLOCATED_TO>	<Project>	07.06.01	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.0040	<Partial>

<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.0041	<Partial>
<SATISFIES>	<Enabler>	METEO-06b	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-04a	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteForecast	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteObservation	<Partial>

2854
2855 [REQ]

Identifier	REQ-07.06.01-TS-MET1.0140
Requirement	The WxSS should receive the 4DwxCube data in relation to Turbulence/Convection/Icing separately.
Title	NOP WEATHER HMI - Weather data available
Status	<Validated>
Rationale	The 4DWxC should be an accurate source for weather phenomena and the NOP would use it. The weather system intends to provide a display and to use the different weather data categories (turbulence/convection/icing) collected, processed and provided by the 4DWxC separately. Turbulence/convection/icing are categories recognised as significant weather, potentially influencing network or local performance and therefore requiring ATM actions for their management.
Category	<Functional>
Validation Method	
Verification Method	<Test>

2856
2857 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Network Operations Plan Management	N/A
<ALLOCATED_TO>	<Project>	07.06.01	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.0080	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.1200	<Partial>
<SATISFIES>	<Enabler>	METEO-06b	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-04a	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteForecast	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteObservation	<Partial>

2858
2859 [REQ]

Identifier	REQ-07.06.01-TS-MET1.0150
Requirement	The WxSS should receive the 4DwxCube data by a published/subscribe protocol id.
Title	Reception of 4DWxC via publish/subscribe
Status	<Validated>
Rationale	The 4DWxC should be an accurate source for weather phenomena and the NOP would use it. The weather system intends to provide a display and to use the weather data collected, processed and provided by the 4DWxC using its defined publish/suscribe protocol. It was later decided to use a query/reply protocol
Category	<Functional>
Validation Method	
Verification Method	<Test>

2860
2861 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Network Operations Plan Management	N/A
<ALLOCATED_TO>	<Project>	07.06.01	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.0040	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.0041	<Partial>
<SATISFIES>	<Enabler>	METEO-06b	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-04a	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteForecast	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteObservation	<Partial>

2862
2863 [REQ]

Identifier	REQ-07.06.01-TS-MET1.0160
Requirement	The WxSS should receive the 4DwxCube data by a set of color pixels representing the probability (High probability (red), Moderate probability (yellow), Low probability (green)).
Title	Reception of 4DWxC color pixels
Status	<Validated>
Rationale	The 4DWxC should be an accurate source for weather phenomena and the NOP would use it. The weather system intends to provide a display and to use the weather data collected, processed and provided by the 4DWxC using its defined pixels.
Category	<Functional>
Validation Method	
Verification Method	<Test>

2864
2865 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Network Operations Plan Management	N/A
<ALLOCATED_TO>	<Project>	07.06.01	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.0040	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.0041	<Partial>
<SATISFIES>	<Enabler>	METEO-06b	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-04a	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteForecast	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteObservation	<Partial>

2866
2867 [REQ]

Identifier	REQ-07.06.01-TS-MET1.0170
Requirement	The WxSS could receive several pixels for each of its grids as the scale (granularity) is different.
Title	Reception of 4DWxC multiple pixels
Status	<Validated>
Rationale	The 4DWxC should be an accurate source for weather phenomena and the NOP would use it. The weather system intends to provide a display and to use the weather data collected, processed and provided by the 4DWxC taking into account its granularity.
Category	<Functional>

Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Network Operations Plan Management	N/A
<ALLOCATED_TO>	<Project>	07.06.01	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.0040	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.0041	<Partial>
<SATISFIES>	<Enabler>	METEO-06b	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-04a	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteForecast	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteObservation	<Partial>

[REQ]

Identifier	REQ-07.06.01-TS-MET1.0180
Requirement	The WxSS will display the complete grid in a given color according to an algorithm (When more or equal than 25% of the pixels are red, the grid is represented in red. When there is less than 25% red and more than 50% yellow, the grid is depicted in yellow. The rest of the cases the grid is green).
Title	Conversion of 4DWxC multiple pixels into grid granularity
Status	<Validated>
Rationale	The 4DWxC should be an accurate source for weather phenomena and the NOP would use it. As the 4DWxC pixel granularity is smaller than the one required by the WxSS to support weather related ATM actions, it is needed to aggregated the pixels received in the adequate granularity. The logic for determining the colour based % given above was slightly modified. The logic for determining the colour based % given above was slightly modified. The logic for determining the colour based % given above was slightly modified. The logic for determining the colour based % given above was slightly modified.The logic for determining the colour based % given above was slightly modified.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Network Operations Plan Management	N/A
<ALLOCATED_TO>	<Project>	07.06.01	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.0040	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.0041	<Partial>
<SATISFIES>	<Enabler>	METEO-06b	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteForecast	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteObservation	<Partial>

[REQ]

Identifier	REQ-07.06.01-TS-MET1.1050
Requirement	The WxSS should display in a map view the MET data for D-1 and actual D.

Title	NOP WEATHER HMI - Aggregated data display - geographical (map) layout
Status	<Validated>
Rationale	The ATM capabilities (particularly capacity) is normally defined in relation to areas (for example sectors) or airfields. As the existence of significant weather geographically coincident in these areas/airfields would affect their capabilities, the presentation of weather data in ATM areas in map would facilitate the user evaluation. The horizon of MET predictions was linited to 12h to limit the amount of data to handle.
Category	<Functional>
Validation Method	
Verification Method	<Test>

2876
2877 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Network Operations Plan Management	N/A
<ALLOCATED_TO>	<Project>	07.06.01	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.1050	<Partial>
<SATISFIES>	<Enabler>	METEO-06b	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-03a	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteForecast	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteObservation	<Partial>

2878
2879 [REQ]

Identifier	REQ-07.06.01-TS-MET1.1060
Requirement	The WxSS should update the display of MET data for D-1 and D with the latest forecast received.
Title	Display of updated 4DWxC data
Status	<Validated>
Rationale	As weather is a changing phenomena, the forecasts would change according to the target time and/or the significant weather phenomena. In order to refine and do the adequate weather risk assessment, the user needs to have the updated weather forecasts.
Category	<Functional>
Validation Method	
Verification Method	<Test>

2880
2881 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Network Operations Plan Management	N/A
<ALLOCATED_TO>	<Project>	07.06.01	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.0040	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.0041	<Partial>
<SATISFIES>	<Enabler>	METEO-06b	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-03a	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteForecast	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteObservation	<Partial>

2882
2883 [REQ]

Identifier	REQ-07.06.01-TS-MET1.1070

Requirement	The WxSS should clearly label the time of the forecast received and the target time (i.e. forecast for dd:hh received on dd:hh).
Title	Label the display of 4DWxC data
Status	<Validated>
Rationale	As weather is a changing phenomena, the forecasts would change according to the target time and/or the significant weather phenomena. In order to refine and do the adequate weather risk assessment, the user needs to have the updated weather forecasts and to be able to clearly trace back on which basis the risk assessment has been done.
Category	<Functional>
Validation Method	
Verification Method	<Test>

2884
2885 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Network Operations Plan Management	N/A
<ALLOCATED TO>	<Project>	07.06.01	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.0040	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.0041	<Partial>
<SATISFIES>	<Enabler>	METEO-06b	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-03a	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteForecast	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteObservation	<Partial>

2886
2887 [REQ]

Identifier	REQ-07.06.01-TS-MET1.1080
Requirement	The WxSS should provide a timeslide to view WX forecasts for different time.
Title	Timeslide to navigate between forecasts of 4DWxC at different timeframe
Status	<Validated>
Rationale	As the forecasts would be available for different target times, the user may need to navigate between all them in a distict way to do and access the weather risk assessment.
Category	<Functional>
Validation Method	
Verification Method	<Test>

2888
2889 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Network Operations Plan Management	N/A
<ALLOCATED TO>	<Project>	07.06.01	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.0040	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.0041	<Partial>
<SATISFIES>	<Enabler>	METEO-06b	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-03a	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteForecast	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteObservation	<Partial>

2890
2891 [REQ]

Identifier	REQ-07.06.01-TS-MET1.1051

Requirement	The WxSS should display in a map view the areas (sectors, etc.) and airport positions.
Title	NOP WEATHER HMI - Geographical (map) layout with sector and airport layer
Status	<In Progress>
Rationale	The ATM capabilities (particularly capacity) is normally defined in relation to areas (for example sectors) or airfields. As the existence of significant weather geographically coincident in these areas/airfields would affect their capabilities, the presentation of weather data in ATM areas in map would facilitate the user evaluation. OK for sector data BUT airport MET data was not available.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Network Operations Plan Management	N/A
<ALLOCATED_TO>	<Project>	07.06.01	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.1050	<Partial>
<SATISFIES>	<Enabler>	METEO-06b	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-03a	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteForecast	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteObservation	<Partial>

[REQ]

Identifier	REQ-07.06.01-TS-MET1.1052
Requirement	The WxSS should display in a map view the areas (sectors, etc.) and airport positions together with the coloured grid calculated from 4DWxC pixels data.
Title	NOP WEATHER HMI - Enriched Geographical (map) layout with sector and airport layer and Weather information.
Status	<Validated>
Rationale	The ATM capabilities (particularly capacity) is normally defined in relation to areas (for example sectors) or airfields. As the existence of significant weather geographically coincident in these areas/airfields would affect their capabilities, the presentation of weather data in ATM areas in map would facilitate the user evaluation. OK for sector data BUT airport MET data was not available.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Network Operations Plan Management	N/A
<ALLOCATED_TO>	<Project>	07.06.01	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.1050	<Partial>
<SATISFIES>	<Enabler>	METEO-06b	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-03a	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteForecast	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteObservation	<Partial>

2898
2899 [REQ]

Identifier	REQ-07.06.01-TS-MET1.1053
Requirement	The WxSS should provide navigation to display/hide layers of information (including weather layer for turbulence/convection/icing) in the map and to create/view dossier.
Title	NOP WEATHER HMI - Enriched Geographical (map) layout with sector and airport layer and Weather information for weather category.
Status	<Validated>
Rationale	The ATM capabilities (particularly capacity) is normally defined in relation to areas (for example sectors) or airfields. In order to provide a clear display facilitating the user weater risk assessment, the different significant weather phenomena needs to be displayed separately.
Category	<Functional>
Validation Method	
Verification Method	<Test>

2900
2901 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Network Operations Plan Management	N/A
<ALLOCATED_TO>	<Project>	07.06.01	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.1050	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.1300	<Partial>
<SATISFIES>	<Enabler>	METEO-06b	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-03a	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteForecast	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteObservation	<Partial>

2902
2903 [REQ]

Identifier	REQ-07.06.01-TS-MET1.1200
Requirement	The WxSS should provide navigation in the map through a drop down menu retrieved by mousing over an area to sorround particular areas by a coloured line (WHITE (created) - GREEN (monitored) - YELLOW (alert) - ORANGE (warning) or RED (execution)) to represent identified Areas of Interest.
Title	Network View of severe weather - impact and mitigations
Status	<Validated>
Rationale	The user needs to identify areas/airports according to the weather risk assessment status defined according to his/her expertise and to make this assessmetn available to other users.
Category	<Functional>
Validation Method	
Verification Method	<Test>

2904
2905 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Network Operations Plan Management	N/A
<ALLOCATED TO>	<Project>	07.06.01	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.1020	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.1250	<Partial>
<SATISFIES>	<Enabler>	METEO-06b	<Partial>

<SATISFIES>	<Enabler>	SWIM-APS-03a	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteForecast	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteObservation	<Partial>

2906
2907 [REQ]

Identifier	REQ-07.06.01-TS-MET1.1300
Requirement	The WxSS should allow the creation of a "dossier" once at least an area has been defined as WxAoI with all the AoI selected.
Title	NOP WEATHER HMI - Aggregated data display - list layout creation
Status	<Validated>
Rationale	The user needs to enhance the information on identified areas/airports according to the weather risk assessment status with additional information in relation to the potential impact and proposed mitigations/actions and any other information relevant for other users.
Category	<Functional>
Validation Method	
Verification Method	<Test>

2908
2909 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Network Operations Plan Management	N/A
<ALLOCATED_TO>	<Project>	07.06.01	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.1000	<Partial>
<SATISFIES>	<Enabler>	METEO-06b	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-03a	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteForecast	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteObservation	<Partial>

2910
2911 [REQ]

Identifier	REQ-07.06.01-TS-MET1.1310
Requirement	The WxSS should support a "dossier"in table form with information as location, phenomena, risk status, identified by, potential impact, action, other.
Title	NOP WEATHER HMI - Aggregated data display - list layout maintenance
Status	<Validated>
Rationale	The user needs to enhance the information on identified areas/airports according to the weather risk assessment status with additional information in relation to the potential impact and proposed mitigations/actions and any other information relevant for other users.
Category	<Functional>
Validation Method	
Verification Method	<Test>

2912
2913 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Network Operations Plan Management	N/A
<ALLOCATED_TO>	<Project>	07.06.01	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.1000	<Partial>
<SATISFIES>	<Enabler>	METEO-06b	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-03a	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteForecast	<Partial>

<SATISFIES>	<Service>	METHazardEnRouteObservation	<Partial>

2914
2915 [REQ]

Identifier	REQ-07.06.01-TS-MET1.1320
Requirement	The WxSS map display should allow the update of the Areas of Interest changing the sorrounding line color.
Title	NOP WEATHER HMI - Display of Significant Weather impact Assessment Information
Status	<Validated>
Rationale	The user needs to keep up to date the weather risk assessment status according to te regularly updated Weather information.
Category	<Functional>
Validation Method	
Verification Method	<Test>

2916
2917 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Network Operations Plan Management	N/A
<ALLOCATED_TO>	<Project>	07.06.01	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.1400	<Partial>
<SATISFIES>	<Enabler>	METEO-06b	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-03a	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteForecast	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteObservation	<Partial>

2918
2919 [REQ]

Identifier	REQ-07.06.01-TS-MET1.1400
Requirement	The WxSS map display should allow the user "sticking post its" to provide text with aditional information.
Title	NOP WEATHER HMI - Display of Significant Weather impact Assessment Information
Status	<Validated>
Rationale	The user needs to provide in an easy accesible and visula way, the weather risk assessment status and any additional relevant information.
Category	<Functional>
Validation Method	
Verification Method	<Test>

2920
2921 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Network Operations Plan Management	N/A
<ALLOCATED_TO>	<Project>	07.06.01	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.1400	<Partial>
<SATISFIES>	<Enabler>	METEO-06b	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-03a	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteForecast	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteObservation	<Partial>

2922
2923 [REQ]

Identifier	REQ-07.06.01-TS-MET1.1500

Requirement	The WxSS map display navigation should allow the creation of hotspots through a drop down menu retrieved by mousing over an WxAoI.
Title	Network View of severe weather - impact and mitigations - hotspot
Status	<Deleted>
Rationale	When the mitigation/action for an AoI is the creation of a hotspot, this action should be simple and quick for the user, being able to retrieve the already identified infornation in the "hotspot management" HMI. This concept was modified and decided that hotspot are not created directly from the WAoI.
Category	<Functional>
Validation Method	
Verification Method	<Test>

2924
2925 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Network Operations Plan Management	N/A
<ALLOCATED_TO>	<Project>	07.06.01	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.1020	<Partial>
<SATISFIES>	<Enabler>	METEO-06b	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-03a	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteForecast	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteObservation	<Partial>

2926
2927 [REQ]

Identifier	REQ-07.06.01-TS-MET1.1600
Requirement	The WxSS shall record the data received and changed creating a log of changes.
Title	Weather related reporting
Status	<In Progress>
Rationale	The user needs to record the data and create a log of weather data, areas, evolution of weather and decisions taken to progressively create a DB that coul eventually be used for supporting decision making in similar situations encountered in the future. This was de-scoped from the validation as could not be tested during a trial period.
Category	<Functional>
Validation Method	
Verification Method	<Test>

2928
2929 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Network Operations Plan Management	N/A
<ALLOCATED_TO>	<Project>	07.06.01	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.1030	<Partial>
<SATISFIES>	<Enabler>	METEO-06b	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-03a	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteForecast	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteObservation	<Partial>

2930
2931 [REQ]

Identifier	REQ-07.06.01-TS-MET1.1700
Requirement	The WxSS shall flag an area and notify a user that is expected to take an action.
Title	Weather related reporting
Status	<In Progress>
Rationale	As the weather risk assessment and related decision making is a collaborative process, it requires that different users take actions (i.e. provision of information in relation to risk of significant weather, its potential impact, and mitigations in a time manner. Being in a context of multiple taks, the user may require to be advised that this action is expected. Not alert mechanishm was implemented so this feature was not covered.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Network Operations Plan Management	N/A
<ALLOCATED_TO>	<Project>	07.06.01	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.1030	<Partial>
<SATISFIES>	<Enabler>	METEO-06b	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-03a	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteForecast	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteObservation	<Partial>

[REQ]

Identifier	REQ-07.06.01-TS-MET1.1750
Requirement	The WxSS shall notify when a new forecast from 4DWxC has arrived.
Title	Notification of new Weather forecast display
Status	<Validated>
Rationale	As the significant weather forecast may change, potentially changing the risk assessment, the user has to be advised when a new forecast is available.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Network Operations Plan Management	N/A
<ALLOCATED TO>	<Project>	07.06.01	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.0040	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.0041	<Partial>
<SATISFIES>	<Enabler>	METEO-06b	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-03a	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteForecast	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteObservation	<Partial>

[REQ]

Identifier	REQ-07.06.01-TS-MET1.1800

Requirement	The WxSS shall provide access to a collabotive decision interface.
Title	Network View of severe weather - impact and mitigations - CDM interface
Status	<In Progress>
Rationale	As the significant weather risk assessment and risk management may require a collaborative process, involving several users, a collaborative decision interface needs to be available. This concept was modified and the CDM process should be done in its simplest form by a B2B extension of traffic counts/list with the SIGMET network imopact assesment (as requested by MUIAC)
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Network Operations Plan Management	N/A
<ALLOCATED TO>	<Project>	07.06.01	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-MET1.1020	<Partial>
<SATISFIES>	<Enabler>	METEO-06b	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-03a	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteForecast	<Partial>
<SATISFIES>	<Service>	METHazardEnRouteObservation	<Partial>

3.1.7 Network Performance

[REQ]

Identifier	REQ-07.06.01-TS-PER1.0100
Requirement	The NOP shall monitor and record the predictability indicators in terms of traffic counts for a selected traffic volume. Predictability is analysed for a future that can be from D-1 up to the moment the observed flights are airborne. It compares the difference between a filed reference at a time H0 and a filed reference at a time H1. At H1 at least one of the flights must still not be airborne.
Title	Predictability Measurements
Status	<Validated>
Rationale	Predictability is an observation of variability in line with expectation. With reference to counts (whether entry or occupancy) the predictability is varying over time and the accuracy depends on the look ahead time horizon. The variation is a function of different parameters and in order to give meaning to the variation, the observations made should be able to provide different views based on specific selection criteria (phase of the flight, implied in measures or not, inflow or outflow, state of the flight, ...). The specific view on predictability and the criteria by which to order, filter, and select the counts will be described in Annex. Variability requires also to set a reference or baseline against which the variation is calculated and indicated and in order to classify the importance of the observed variation the acceptable margins and tolerances have to be specified or defined statically and possible dynamically. These targets, tolerances, and margins will be also specified in annex.
Category	<Functional>

Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Performance measurements and monitoring	N/A
<ALLOCATED_TO>	<Project>	07.06.01	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-PRF1.0001	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-PRF1.0002	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-PRF1.0004	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-PRF1.0022	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-03a	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-04a	<Partial>
<SATISFIES>	<Service>	NetworkOperationPlan	<Partial>

[REQ]

Identifier	REQ-07.06.01-TS-PER1.0200
Requirement	The NOP shall monitor and record the adherence indicators in terms of traffic counts within a selected traffic volume. Adherence observes the difference between a filed reference and an actual reference. The observation time/ sampling times shall include at least one sample at the reference T0 and one at the actual T1 for data recording. More intermediate sampling is required for monitoring function. Adherence regarding the traffic counts compares nr of flights as a whole. Adherence for an individual flight will compare the filed and actual profile.
Title	Adherence Measurements
Status	<Validated>
Rationale	Adherence measurements can be used for on-line minitoring or for post-OPs analysis. Adherence is an observation of variability of actual execution versus expectation. With reference to counts (whether entry or occupancy) the adherence is comparing an execution phase with a planning phase of a flight.The adherence can be observed in terms of different flight dimensions (FL, speed, time over, elapsed flying time, consumption, and various other cost factors) in order to give meaning to the trade-offs AU and ATC/FMP/ANSP have to make in terms of performance, efficiency, or other criteria. The specific view on adherence and the criteria by which to order, filter, and select the counts will be described in Annex. Variability requires also to set a reference or baseline target against which the variation is calculated and indicated and in order to classify the importance of the observed variation the acceptable margins and tolerances have to be specified or defined statically and possible dynamically. These targets, tolerances, and margins will be also specified in annex.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Performance measurements and monitoring	N/A
<ALLOCATED TO>	<Project>	07.06.01	N/A
<APPLIES TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-PRF1.0001	<Partial>

<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-PRF1.0002	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-PRF1.0004	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-PRF1.0022	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-03a	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-04a	<Partial>
<SATISFIES>	<Service>	NetworkOperationPlan	<Partial>

2953
2954 [REQ]

Identifier	REQ-07.06.01-TS-PER1.0300
Requirement	The NOP shall monitor and record the evolution of load status indicators in terms of traffic counts within a selected Traffic Volume. Load Status Evolution observes the difference between an archived reference (wihch can be an accumulated analysis with statistiscal deviations and probabilities) and an actual situation.
Title	Load Status Evolution
Status	<Validated>
Rationale	Load Status Evolition can be used for on-line minitoring or for post-OPs analysis. Load Stauts Evolution is an observation of variability of planned and actual execution versus historical data (possibly adjusted for forecasting purposes). With reference to counts (whether entry or occupancy) the adherence is comparing an execution or planning phase with an arcihved view of the data at a comparable date or during a specific period. The measurements will allow trending of the period of observation in order to give meaning to the observed situation (impoving, worsening, stable) or in terms of categorising the situation (normal, worse, better, catstrophic, ...). The specific view on the load status evolution in terms of counts will be described in Annex. Evolution requires also to set a reference or baseline target against which the observations are made and indicated and in order to classify the importance of the observed evolution the acceptable margins and tolerances have to be specified or defined statically and possible dynamically. These targets, tolerances, and margins will be also specified in annex.
Category	<Functional>
Validation Method	
Verification Method	<Test>

2955
2956 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED_TO>	<Functional block>	Performance measurements and monitoring	N/A
<ALLOCATED_TO>	<Project>	07.06.01	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-PRF1.0001	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-PRF1.0002	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-PRF1.0004	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-PRF1.0022	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-03a	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-04a	<Partial>
<SATISFIES>	<Service>	NetworkOperationPlan	<Partial>

2957
2958 [REQ]

Identifier	REQ-07.06.01-TS-PER1.0400
Requirement	The B2B service shall retrieve additional attributes of AtfcmSituationDisplay.
Title	B2B access to AtfcmSituationDisplay data

Status	<Validated>
Rationale	The aim of this validation is to exploit new KPIs that will assist the monitoring, supervision and analysis of the Network Situation to allow NMOC to conform with the targets of the NM Performance Plan. The accent is on on-line monitoring although post-analysis is also addressed. The objectives of the validation are: a, to assess the operational use of a representative set of KPIs to assist network monitoring, b, better integration, easy navigation from Network top level KPIs to FMP level. i.e. by FMP/NM ratio values or subtotals, nr of flights affected by measure(s) , delay ratio etc… c, asses the usefulness of trend graphs, dispersion or load evolution graphs amongst others to display measurements and facilitate analysis of the evolution and comparison.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<ALLOCATED TO>	<Functional block>	Performance measurements and monitoring	N/A
<ALLOCATED TO>	<Project>	07.06.01	N/A
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.07	N/A
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-PRF1.0001	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-PRF1.0002	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-PRF1.0004	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-PRF1.0022	<Partial>
<SATISFIES>	<ATMS Requirement>	REQ-07.06.01-OSED-PRF1.0023	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-03a	<Partial>
<SATISFIES>	<Enabler>	SWIM-APS-04a	<Partial>
<SATISFIES>	<Service>	NetworkOperationPlan	<Partial>

3.2 Adaptability

[REQ]

Identifier	REQ-13.02.03-TS-D352.4010
Requirement	The system shall use different complexity calculation algorithms.
Title	Different complexity algorithms
Status	<In Progress>
Rationale	Different algorithms can be used to estimate the workload,and complexity indicators so the system allows the user to assess different methods of complexity calculation
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.4020

Requirement	The system should be able to easily be adapted to new HMI technologies.
Title	Adaptability to new HMI
Status	<In Progress>
Rationale	The design of the system eases the improvement of the current HMI with new technologies
Category	<Functional>
Validation Method	
Verification Method	<Analysis>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13b	<Partial>

3.3 Performance Characteristics

N/A

3.4 Safety & Security

3.4.1 Safety Requirements

This sub-section describes the requirements related to the system safety.

[REQ]

Identifier	REQ-13.02.03-TS-D352.5101
Requirement	The system shall avoid to propagate any internal failure that can corrupt the information in the local operational environment
Title	Local operational environment isolation
Status	<In Progress>
Rationale	The system should be isolate in order to avoid that any internal system failure can be propagated to the local operational environment.
Category	<Safety>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.5102
Requirement	The system shall avoid to propagate any internal failure that can corrupt the information in the regional (operational network) environment
Title	Network environment isolation
Status	<In Progress>
Rationale	The system should be isolate in order to avoid that any internal system failure can be propagated to the regional (operational network) environment.
Category	<Safety>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>

3.4.2 Security Requirements

This sub-section describes the requirements related to the system security.

[REQ]

Identifier	REQ-13.02.03-TS-D352.4201
Requirement	The system shall secure access by means of a specific authorised username for each user
Title	User system access by username
Status	<In Progress>
Rationale	The user has to use an authorised username to access the system .
Category	<Security>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.4210
Requirement	The system shall secure access by means of a password provided by each user for his/her username
Title	User system access by password
Status	<In Progress>
Rationale	The user has to use a password for each username to access the system .
Category	<Security>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>

3.5 Maintainability

N/A

3.6 Reliability

This sub-section describes the requirements related to the system reliability. Reliability encompasses robustness to abnormal operating conditions.

[REQ]

Identifier	REQ-13.02.03-TS-D352.6001
Requirement	The system shall allow for continuous operational use (24 hours per day, 7 days per week).
Title	System Availability
Status	<In Progress>
Rationale	The system has to be operative continuously.
Category	<Reliability>
Validation Method	
Verification Method	<Analysis>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.6010
Requirement	The system shall detect format errors on the input data from the external system.
Title	Detection of input data errors from the external sources
Status	<In Progress>
Rationale	An error in input data shall be detected to avoid further processing with unreliable data
Category	<Reliability>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.6020
Requirement	The system shall record the errors detected in order to facilitate later analysis.
Title	Store input data errors
Status	<In Progress>
Rationale	The user shall be able to perform off-line analysis of the detected errors
Category	<Reliability>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A

<SATISFIES>	<Enabler>	NIMS-13B	<Partial>

3023
3024
3025 [REQ]

Identifier	REQ-13.02.03-TS-D352.6030
Requirement	The system shall detect format errors on configuration data.
Title	Configuration data error detection
Status	<In Progress>
Rationale	Inconsistent configurations shall be detected.
Category	<Reliability>
Validation Method	
Verification Method	<Test>

3026
3027 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>

3028
3029
3030 [REQ]

Identifier	REQ-13.02.03-TS-D352.6040
Requirement	The system shall detect format errors on user input data.
Title	User input data error detection
Status	<In Progress>
Rationale	These error detections allow reliable use for intended users
Category	<Reliability>
Validation Method	
Verification Method	<Test>

3031
3032 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>

3033
3034
3035 [REQ]

Identifier	REQ-13.02.03-TS-D352.6050
Requirement	The system shall provide a media to deliver the recorded error to the user or external sources.
Title	Deliver recorded error
Status	<In Progress>
Rationale	This information could be used by the user for further analysis.
Category	<Reliability>
Validation Method	
Verification Method	<Test>

3036
3037 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>

3038

3.7 Functional block Internal Data Requirements

N/A.

3.8 Design and Construction Constraints

This sub-section describes the requirements related to the system design constraints.

[REQ]

Identifier	REQ-13.02.03-TS-D352.8010
Requirement	Development of the system will use an operating system compatible with the local infrastructure.
Title	Software Operating System
Status	<In Progress>
Rationale	The system must be compatible with the local infrastructures and easily maintainable using existing resources and procedures
Category	<Interoperability>
Validation Method	
Verification Method	<Inspection>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.8020
Requirement	Software development shall use programming languages that are industrial standard widely used and supported.
Title	Programming languages
Status	<In Progress>
Rationale	The system must be easily modified and maintainable using existing resources and procedures
Category	<Interoperability>
Validation Method	
Verification Method	<Inspection>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES_TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED_TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>

[REQ]

Identifier	REQ-13.02.03-TS-D352.8030
Requirement	The development of database and other standard functions (graphics display) shall use industry standard COTS.
Title	Use of COTS software
Status	<In Progress>
Rationale	The system must be easily modified and maintainable using existing resources and procedures
Category	<Interoperability>
Validation Method	
Verification Method	<Inspection>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance
<APPLIES TO>	<Operational Focus Area>	OFA05.03.04	N/A
<ALLOCATED TO>	<Functional block>	Demand & Capacity Balancing	N/A
<ALLOCATED_TO>	<Project>	13.02.03	N/A
<SATISFIES>	<Enabler>	NIMS-13B	<Partial>

3.9 Functional block Interface Requirements

3.9.1 AOP-NOP Integration

See SVA 01 SDD, STDD and SCR in Chapter 5 References from [17] to [19].

3.9.2 MET-NOP Integration

see SVA 10 SDD, STDD and SCR in Chapter 5 References from [20] to [27].

4 Assumptions

N/A.

3070

5 References

The following documents were used to provide input/guidance/further information/other:

[1] Template Toolbox 03.01.01
https://extranet.sesarju.eu/Programme%20Library/SESAR%20Template%20Toolbox.dot

[2] Requirements and V&V Guidelines 03.01.00
https://extranet.sesarju.eu/Programme%20Library/Requirements%20and%20VV%20Guidelines.doc

[3] Templates and Toolbox User Manual 03.01.01
https://extranet.sesarju.eu/Programme%20Library/Templates%20and%20Toolbox%20User%20Manual.doc

[4] EUROCONTROL ATM Lexicon
https://extranet.eurocontrol.int/http://atmlexicon.eurocontrol.int/en/index.php/SESAR

[5] SESAR Definition Phase – Task 2.4.x Milestone 3 – System Architecture (DLT-0612-244-00-10), September 2007

[6] IEEE / MIL Standards

[7] SESAR Technical Specification.dot edition 03.00.00 08/05/2012

[8] 07.02-D42-Step 1 Network Sub-systems Technical Architecture TAD Ed. 00.01.14

[9] 13_02_03_D303_OSED_Step1_V3 edition 00.05.01 31/08/2016

[10] 13.02.03-D323 Step1 DCB SPR , 2016, edition 1.0

[11] 13.02.03-D350 Federated DCB Step1/Release 4 edition 00.00.08 12/09/2014

[12] 4.07.01-D62 Step_1_Final OSED (final version edition 2).

[13] 14.01.04-D42-004 SWIM-TI Yellow Profile Technical Specification 3.0 Ed. 00.02.00

[14] 08.03.10-D62 European ATM Service Portfolio Ed. 00.05.00 30/11/2014

[15] 07.6.1 OSED D45step 1

[16] 08.03.10 D63 Final Technical Specification for Step 1 Federated DCB and TT management

[17] SDD SVA01 B04.03 Final Technical Specification for Step 1 Federated DCB and TT management Ed 00.01.00
https://extranet.sesarju.eu/WP_B/Project_B.04.03/Other%20Documentation/07%20Service%20Deliverables/AirportFlightPlanningInformation/SESAR%20SDD%20-%20SVA001%20-%20AirportFlightPlanningInformation%20Service.docm

[18] STDD SVA01B04.03 Service Technical Design for Final Technical Specification for Step 1 Federated DCB and TT management Ed 00.01.00
https://extranet.sesarju.eu/WP_B/Project_B.04.03/Other%20Documentation/07%20Service%20Deliverables/AirportFlightPlanningInformation/SESAR%20STDD%20-%20SVA001%20-%20AirportFlightPlanningInformation%20Service.xlsm

[19] SCR SVA01 B04.03 D48 SWIM Compliance Report for AirportFlightPlanningInformation Service Ed 00.01.04
https://extranet.sesarju.eu/WP_B/Project_B.04.03/Other%20Documentation/07%20Service%

20Deliverables/AirportFlightPlanningInformation/08%2001%2001-D48-SWIM%20Compliance%20Report%20AirportFlightPlanningInformation.doc

[20] 08.03.10-D65 Information Services Reference Model Service Portfolio Version 2.0, Ed.00.08.0 SDD SVA10 WP 08.03.10 D65 European ATM Service Description for MET Hazard En-route Observation

[21] 08.03.10-D65 Information Services Reference Model Service Portfolio Version 2.0, Ed.00.08.0 STDD SVA10 B 04.03 Service Technical Design for European ATM Service Description for MET Hazard En-route Observation

[22] 08.03.10-D65 Information Services Reference Model Service Portfolio Version 2.0, Ed.00.08.0 SCR SVA10 WP 08.01.10 D48 SWIM Compliance Report for European ATM Service Description for MET Hazard En-route Observation

[23] 08.03.10-D65 Information Services Reference Model Service Portfolio Version 2.0, Ed.00.08.0 SDD SVA10 WP 08.03.10 D65 European ATM Service Description for MET Hazard En-route Forecast

[24] 08.03.10-D65 Information Services Reference Model Service Portfolio Version 2.0, Ed.00.08.0 STDD (AMPQ) SVA10 B 04.03 Service Technical Design for European ATM Service Description for MET Hazard En-route Forecast

[25] 08.03.10-D65 Information Services Reference Model Service Portfolio Version 2.0, Ed.00.08.0 STDD (REST) SVA10 B 04.03 Service Technical Design for European ATM Service Description for MET Hazard En-route Forecast

[26] 08.03.10-D65 Information Services Reference Model Service Portfolio Version 2.0, Ed.00.08.0 STDD (WS-N) SVA10 B 04.03 Service Technical Design for European ATM Service Description for MET Hazard En-route Forecast

[27] 08.03.10-D65 Information Services Reference Model Service Portfolio Version 2.0, Ed.00.08.0 SCR SVA10 D48 SWIM Compliance Report for European ATM Service Description for MET Hazard En-route Forecast

[28] 08.03.10-D65 Information Services Reference Model Service Portfolio Version 2.0, Ed.00.08.0 SDD SVA009 Hotspot Management Service https://extranet.sesarju.eu/WP_B/Project_B.04.03/Other%20Documentation/07%20Service%20Deliverables/HotspotManagement/SESAR%20Service%20Design%20Description%20-%20SVA009%20-%20HotspotManagement%20Service.docm

[29] 08.03.10-D65 Information Services Reference Model Service Portfolio Version 2.0, Ed.00.08.0 STDD SVA009 Hotspot Management Service https://extranet.sesarju.eu/WP_B/Project_B.04.03/Other%20Documentation/07%20Service%20Deliverables/HotspotManagement/SESAR%20Service%20Technical%20Design%20Description%20-%20SVA009%20-%20HotspotManagement%20Service.xlsm

[30] 08.03.10-D65 Information Services Reference Model Service Portfolio Version 2.0, Ed.00.08.0 SCR SVA009 Hotspot Management Service https://extranet.sesarju.eu/WP_B/Project_B.04.03/Other%20Documentation/07%20Service%20Deliverables/HotspotManagement/08%2001%2001-D48-SWIM%20Compliance%20Report%20HotspotManagement.doc

[31] 08.03.10-D65 Information Services Reference Model Service Portfolio Version 2.0, Ed.00.08.0 SDD SVA009 MCDM https://extranet.sesarju.eu/WP_B/Project_B.04.03/Other%20Documentation/07%20Service%20Deliverables/MCDM/SESAR%20Service%20Design%20Description%20-%20SVA009%20-%20MCDM%20Service.docm

[32] 08.03.10-D65 Information Services Reference Model Service Portfolio Version 2.0, Ed.00.08.0 STDD SVA009 MCDM https://extranet.sesarju.eu/WP_B/Project_B.04.03/Other%20Documentation/07%20Service%20Deliverables/MCDM/SESAR%20Service%20Technical%20Design%20Description%20-%20SVA009%20-%20MCDM%20Service.xlsm

[33] 08.03.10-D65 Information Services Reference Model Service Portfolio Version 2.0, Ed.00.08.0 SCR SVA009 MCDM https://extranet.sesarju.eu/WP_B/Project_B.04.03/Other%20Documentation/07%20Service%20Deliverables/MCDM/08%2001%2001-D48-SWIM%20Compliance%20Report%20MCDM.doc

[34] 08.03.10-D65 Information Services Reference Model Service Portfolio Version 2.0, Ed.00.08.0 SDD SVA009 NM Capacity Data https://extranet.sesarju.eu/WP_B/Project_B.04.03/Other%20Documentation/07%20Service%

20Deliverables/NMCapacityData/SESAR%20Service%20Design%20Description%20-%20SVA009%20-%20NMCapacityData%20Service.docm

[35] 08.03.10-D65 Information Services Reference Model Service Portfolio Version 2.0, Ed.00.08.0 STDD SVA009 NM Capacity Data https://extranet.sesarju.eu/WP_B/Project_B.04.03/Other%20Documentation/07%20Service%20Deliverables/NMCapacityData/SESAR%20Service%20Technical%20Design%20Description%20-%20SVA009%20-%20NMCapacityData%20Service.xlsm

[36] 08.03.10-D65 Information Services Reference Model Service Portfolio Version 2.0, Ed.00.08.0 SCR SVA009 NM Capacity Data https://extranet.sesarju.eu/WP_B/Project_B.04.03/Other%20Documentation/07%20Service%20Deliverables/NMCapacityData/08%2001%2001-D48-SWIM%20Compliance%20Report%20NMCapacityData.doc

[37] 08.03.10-D65 Information Services Reference Model Service Portfolio Version 2.0, Ed.00.08.0 SDD SVA009 NM Flight Data https://extranet.sesarju.eu/WP_B/Project_B.04.03/Other%20Documentation/07%20Service%20Deliverables/NMFlightData/SESAR%20Service%20Design%20Description%20-%20SVA009%20-%20NMFlightData%20Service.docm

[38] 08.03.10-D65 Information Services Reference Model Service Portfolio Version 2.0, Ed.00.08.0 STDD SVA009 NM Flight Data https://extranet.sesarju.eu/WP_B/Project_B.04.03/Other%20Documentation/07%20Service%20Deliverables/NMFlightData/SESAR%20Service%20Technical%20Design%20Description%20NMFlightData.xlsm

[39] 08.03.10-D65 Information Services Reference Model Service Portfolio Version 2.0, Ed.00.08.0 SCR SVA009 NM Flight Data https://extranet.sesarju.eu/WP_B/Project_B.04.03/Other%20Documentation/07%20Service%20Deliverables/NMFlightData/08%2001%2001-D48-SWIM%20Compliance%20Report%20NMFlightData.doc

[40] 08.03.10-D65 Information Services Reference Model Service Portfolio Version 2.0, Ed.00.08.0 SDD SVA009 STAM Measures https://extranet.sesarju.eu/WP_B/Project_B.04.03/Other%20Documentation/07%20Service%20Deliverables/STAMMeasures/SESAR%20Service%20Design%20Description%20-%20SVA009%20-%20STAMMeasures%20Service.docm

[41] 08.03.10-D65 Information Services Reference Model Service Portfolio Version 2.0, Ed.00.08.0 STDD SVA009 STAM Measures https://extranet.sesarju.eu/WP_B/Project_B.04.03/Other%20Documentation/07%20Service%20Deliverables/STAMMeasures/SESAR%20Service%20Technical%20Design%20Description%20STAMMeasures.xlsm

[42] 08.03.10-D65 Information Services Reference Model Service Portfolio Version 2.0, Ed.00.08.0 SCR SVA009 STAM Measures https://extranet.sesarju.eu/WP_B/Project_B.04.03/Other%20Documentation/07%20Service%20Deliverables/STAMMeasures/08%2001%2001-D48-SWIM%20Compliance%20Report%20STAMMeasures.doc

[43] 08.03.10-D65 Information Services Reference Model Service Portfolio Version 2.0, Ed.00.08.0 SDD SVA009 Traffic Volume Information https://extranet.sesarju.eu/WP_B/Project_B.04.03/Other%20Documentation/07%20Service%20Deliverables/TrafficVolumeInformation/SESAR%20Service%20Design%20Description%20-%20SVA009%20-%20TrafficVolumeInformation%20Service.docm

[44] 08.03.10-D65 Information Services Reference Model Service Portfolio Version 2.0, Ed.00.08.0 STDD SVA009 Traffic Volume Information https://extranet.sesarju.eu/WP_B/Project_B.04.03/Other%20Documentation/07%20Service%20Deliverables/TrafficVolumeInformation/SESAR%20Service%20Technical%20Design%20Description%20-%20SVA009%20-%20TrafficVolumeInformation.xlsm

[45] 08.03.10-D65 Information Services Reference Model Service Portfolio Version 2.0, Ed.00.08.0 SCR SVA009 Traffic Volume Information https://extranet.sesarju.eu/WP_B/Project_B.04.03/Other%20Documentation/07%20Service%20Deliverables/TrafficVolumeInformation/08%2001%2001-D48-SWIM%20Compliance%20Report%20TrafficVolumeInformation.doc

5.1 Use of copyright / patent material /classified material

N/A.

5.1.1 Classified Material

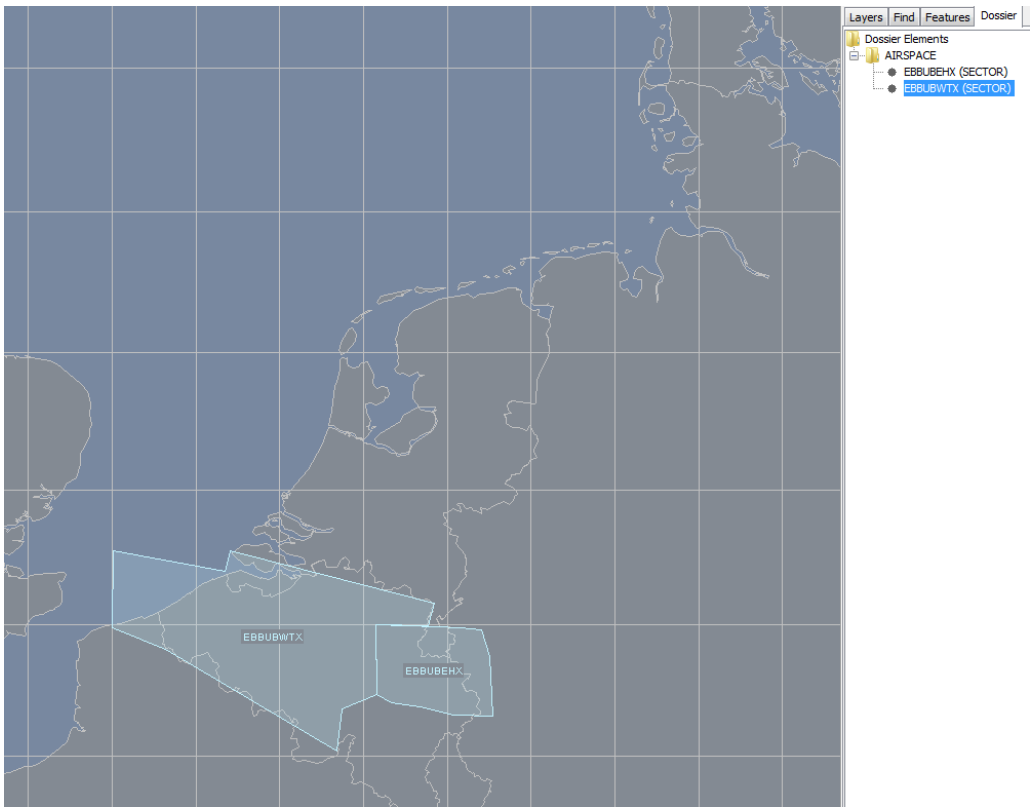
N/A.

Appendix A – Weather subsystem (WxSS) capabilities Storyboard

This Annex describes the weather subsystem capabilities. This subsystem will be accessible as a standalone view with potential for integration in the NOP at a later stage.

A.1 4D WX Cube (4DWxC) Weather Data assembly

[1] The WSS holds information about the ATC sectors in the European Network. Before receiving any data from the *4D WX Cube,* it shall be able to represent this information.



[2] Retrieval of METdata resolution downgrade.

The 4DwxCube provider will provide forecast for a horizon of 24h. Updates will be provided every 6hours.

It will also provide observation data.

The WxSS will provide a time slide.

The MET data is provided in either grib2 or NetCDF format (tbd).

It will provide Turbulence/Convection/Icing forecast at a given time per grid of 5Km * 5Km and with a bottom and top altitudes provided by NOP (“cube”).
Each significant phenomenon i.e. Tur/Con/Icing will be provided separately.
The probability of and the phenomenon is given by colour pixel:
High probability (red)
Moderate probability (yellow)
Low probability (green).
A grid may have different pixels of different colours

The threshold to determine if a phenomenon is significant or not is s will be defined together with the MET experts.

The protocol id is published subscribe (to specify the service interface)

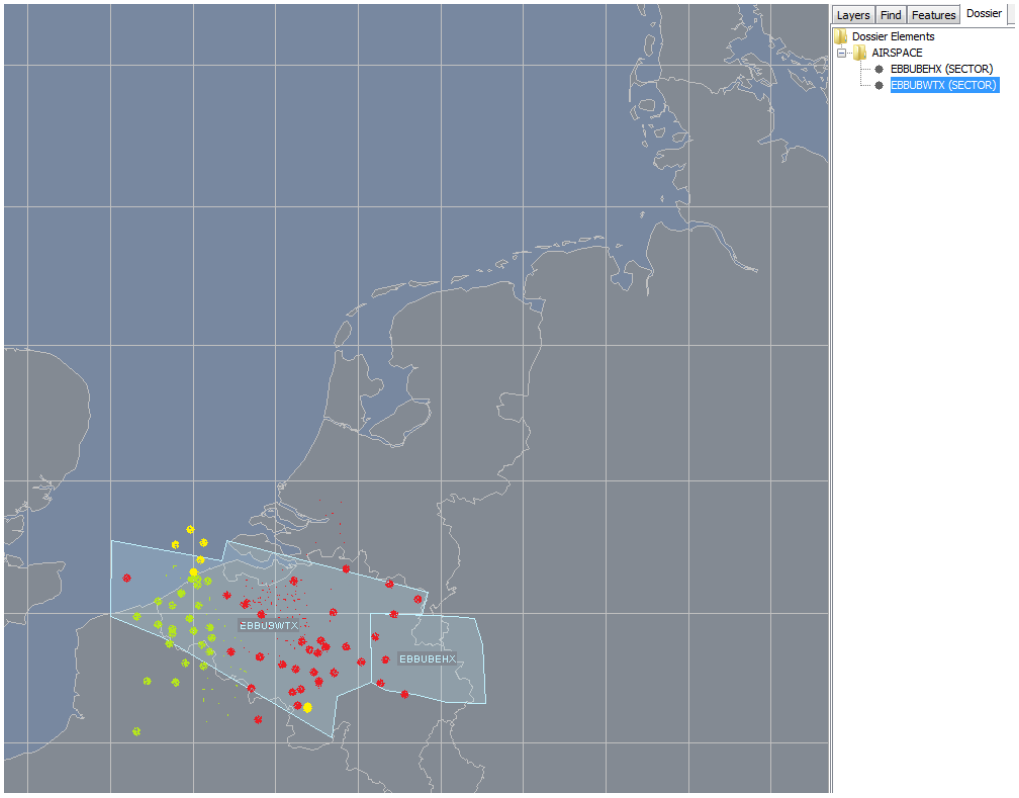
The 4Dwxcube provider granularity is smaller than the one required by Network. Hence the WxSS needs to assign a probability (colour) to the grid according to a criteria.

.

For example,

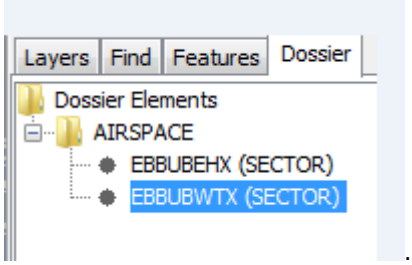
When more or equal than 25% of the pixels are red, the grid is represented in red. When there is less than 25% red and more than 50% yellow, the grid is depicted in yellow. The rest of the cases the grid is green.

[2] Graphical representation on a map



A.2 Identification of Areas of Interest (WxAoI) in a graphical display (map).

[3] The map HMI provides the possibility to display data in layers, one layer with sectors representations and another with weather representation (amongst others)



.

The Weather presents:

Weather:

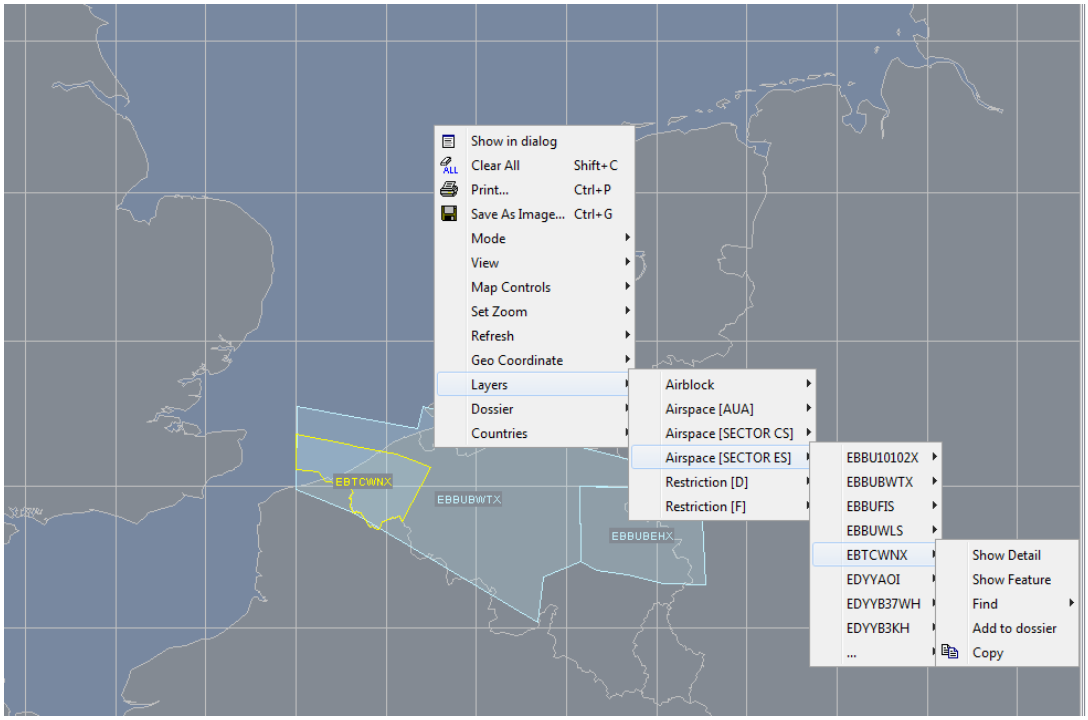
- *Turbulence/*
- *Convection/*
- *Icing*

The user can select/deselect the layers referring to a given phenomenon type.

When the user (local and/or NM) judges the picture relevant as potentially causing disturbances to the performance of the sector (imbalances), he/she can define a WX Area of Interest (WxAoI) for monitoring, by depicting a line around the concerned sector polygon.

[4] Mousing over in the map, a drop down menu appears identifying the entities (sectors, TMA, airport).

An additional feature allows by clicking to be surrounded by a line (creation of WX AoI).



.

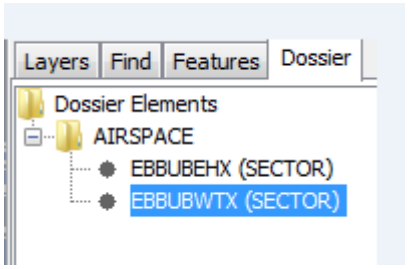
[5] By default, the depicted area (Area of Interest) is surrounded by a white lin.

The line can be WHITE (created) – GREEN (monitored) – YELLOW (alert) – ORANGE (warn) or RED (execution).

[6] Once at least an area has been defined as WxAoI, it is created a “dossier” with all the areas of interest selected.

The local/NM user can created one or more, and all the WxAoI will be part of the same dossier, corresponding to a given time WX forecast.

[7] The dossier is created/retrieved from the tab menu.



[8] The dossier clearly indicates the time of the forecast and the risk status for the area and event.

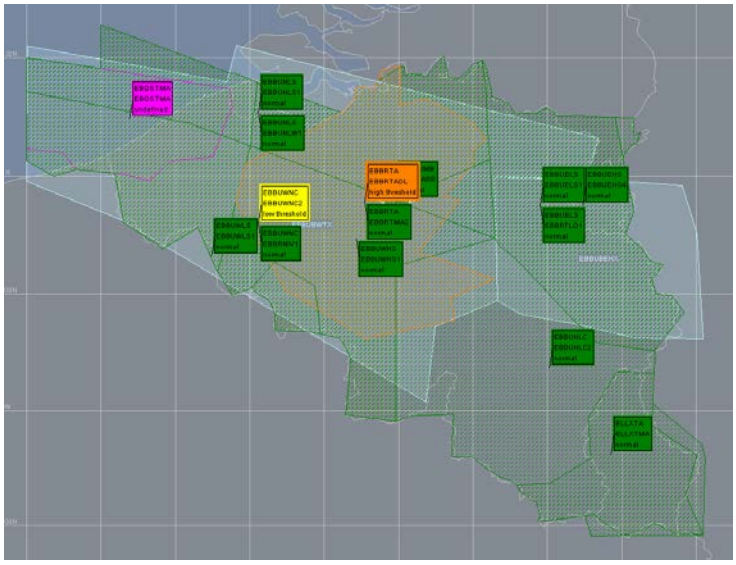
Areas of interest for DDMM *following forecast issued at hh:mm DDMM.*

Location	Phenomena	Risk status	Identified by	Potential impact	Action	Other

A.3 Maintenance of Areas of Interest (WxAoI) in a graphical display (map).

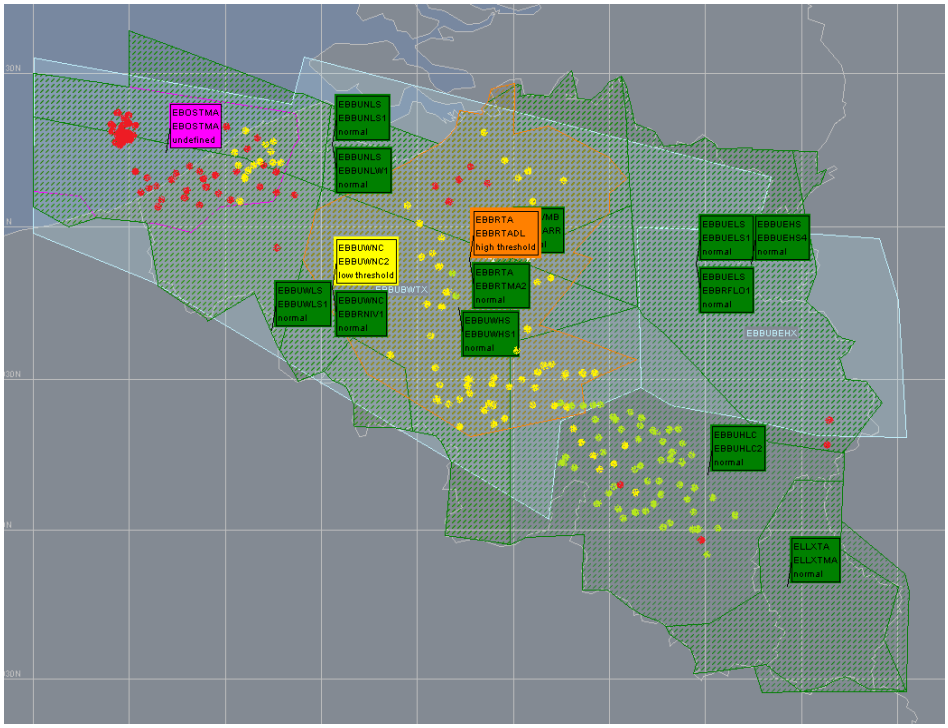
[9] Modification of “dossier” and/or WxAoI contour colour according to forecast evolution and Risk status classification.

The local/NM user has a picture according to the later information including some additional information that he can add in the post-it (small rectangles depicted on the map)



Status for DDHH acc. Forecast hh:mm

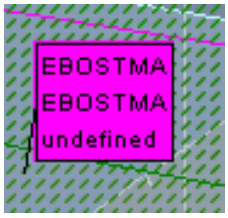
When a new forecast is received,



The WxSS presents the new pixels indicating the time *Status for DDHH acc. Forecast hh2:mm2*

The user can modify the WxAoI contour colour and the dossier. The user can also modify the information in the post-it. The user can also remove WxAoI (both contour and from dossier) if not longer subject to weather risk.

[10] Presentation of enriched information in the graphical display.



[11] Indication of the time of the forecast and risk status clearly both in the map and the dossier..

Weather Risk status for DDHH acc. Forecast hh2:mm2

A.4 Conversion of Areas of Interest (WxAoI) into hotspot.

The user could (when integrated in the same system) retrieve an WxAoI and convert it in hotspot, linking to the launching of the dDCB process.

A.5 Creation of logs and Archiving

The WxSS will record the data received and the data added as part of the assessment process.

The data recorded will include the final situation according to the observation.

[12] Building knowledge base repository

The user will be able to retrieve past information and enrich it.

A.6 Other

[13] Alerting

The WxSS may flag and notify a user that is expected to take some action.

For example when a new forecast has arrived.

[14] Collaborative decision

The WxSS may provide access to some sort of collaborative decision interface.

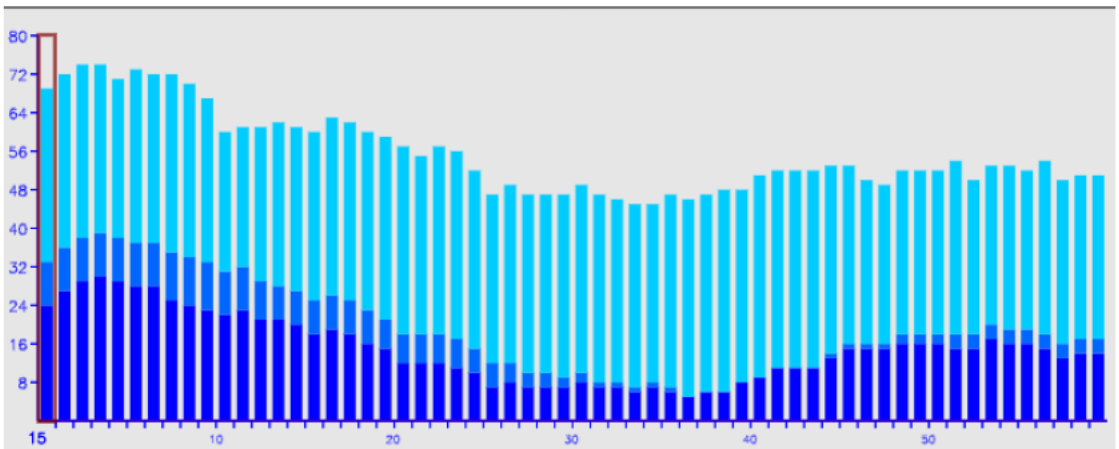
.

3338 # Appendix B - Network Performance Monitoring

3339 ## Indicators

3340

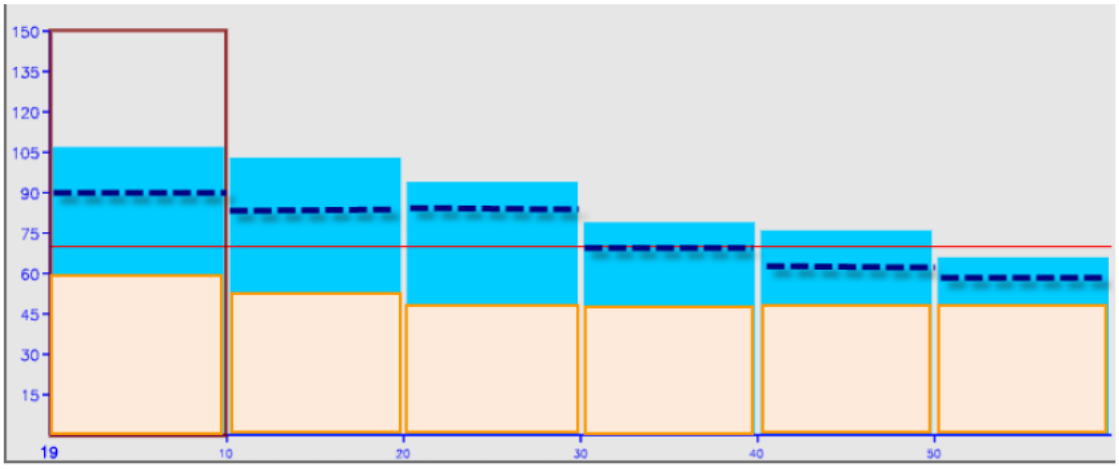
Indicator	*PREDICTABILITY - Traffic Occupancy Origin*
Objective and Target	
Objective	*To determine the proportion of flights that are airborne versus ground in the occupancy count*
Question	*Is the fluctuation of the occupancy count due to the bigger tolerances of aircraft still on the ground (+ or – 15 minutes)*
Target	*Target is to analyse the stability of the occupancy counts in function of time*
Operational Specification	
Definition	*Percentage of airborne versus ground per unit of time*
Source	*From traffic counts query*
Calculation	*Total O/C = Ground A/C + Airborne A/C*
Reporting and Analysis	
Frequency	*Per minute*
By Whom	*FMP*
Contacts	*NMOC*
Analysis	*The rate of change between airborne and ground increases the reliability of the O/C*



3341

3342 Darkblue: GND
3343 Shaded blue: Off Block
3344 Lightblue: Airborne

Indicator	*PREDICTABILITY - Traffic Occupancy Flux*
Objective and Target	
Objective	*To determine the proportion of flights that are inflow, outflow and stable in the occupancy count*
Question	*Is the fluctuation of the occupancy count due to the inflow and outflow of A/C*
Target	*Target is to analyse the reliability of the occupancy counts in function of participating A/C*
Operational Specification	
Definition	*Inflow are A/C that were not predicted to be in the sector but are in based on flight planning and actual profiles* *Outflow are A/C that were predicted to be in the sector but are no longer based on flight planning and actual profiles* *Stable are A/C that were predicted to be in the sector and are in based on flight planning and actual profiles* *The counts are compared with a reference baseline count which could be a fixed point in time or a rolling window comparing with interval of x minutes before the actual*
Source	*From traffic counts query*
Calculation	*Total O/C = Inflow –Outflow + Stable*
Reporting and Analysis	
Frequency	*Per minute*
By Whom	*FMP*
Contacts	*NMOC*
Analysis	*The rate of change between stable and in/outflow increases the reliability of the O/C*

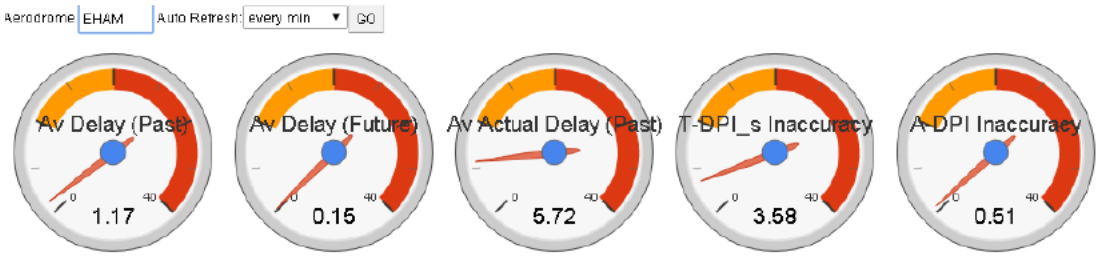


Orange: stable

Blue: inflow

Dotted: outflow

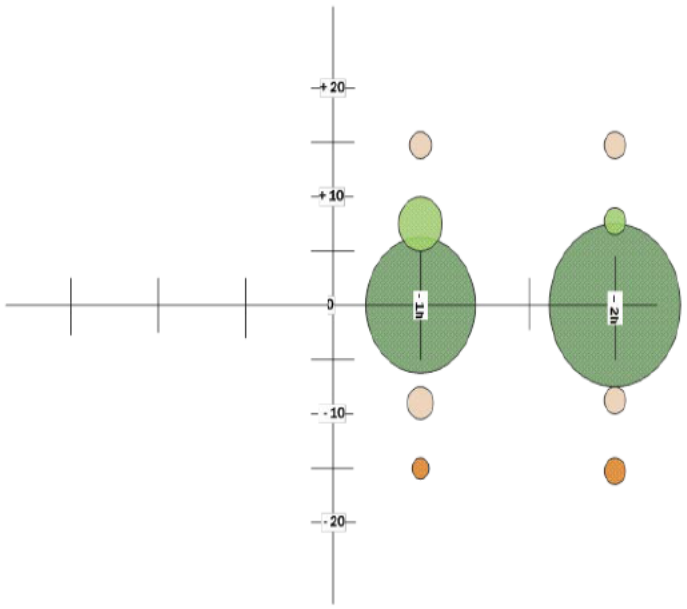
Indicator	*ADHERENCE - Departure Tolerance*
Objective and Target	
Objective	*To determine the tolerance on the TOT in function of DPI; Regulation, Normal variance*
Question	*How trustworthy are the departure times of the A/C for a particular airport*
Target	*Target is to analyse the reliability of the occupancy counts with influx from nearby airports*
Operational Specification	
Definition	*DPI-s Tolerance TTOT-ATOT* *Regulation Tolerance CTOT-ATOT* *Normal Tolerance ETOT-ATOT*
Source	*From Flight List*
Calculation	*Subtraction of corresponding columns averaged out over all the flights departing from the specified aerodrome*
Reporting and Analysis	
Frequency	*Per minute*
By Whom	*FMP*
Contacts	*NMOC*
Analysis	*The values allow to apply a shift to the ground traffic included in the occupancy counts to compare the filed take off time with their adjusted values*

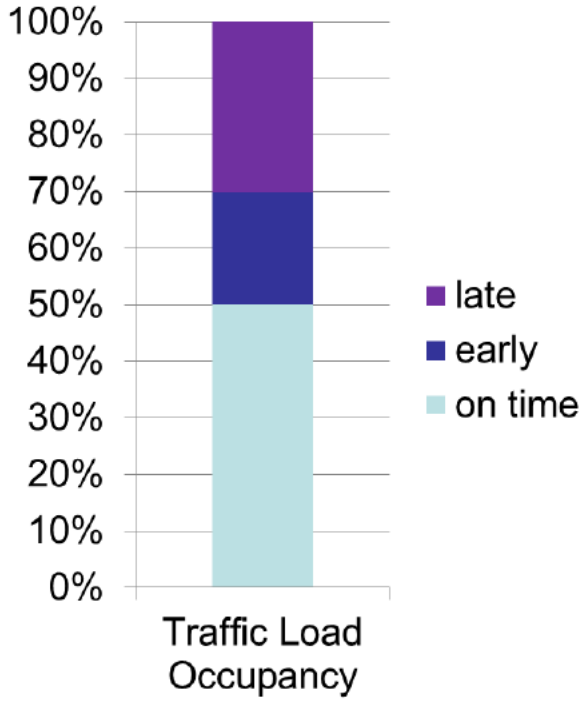


3349

3350 ## Location Time Predictability – LTP

3351





3352

3353

3354

3355

3356

3357

3358

3359

3360

3361

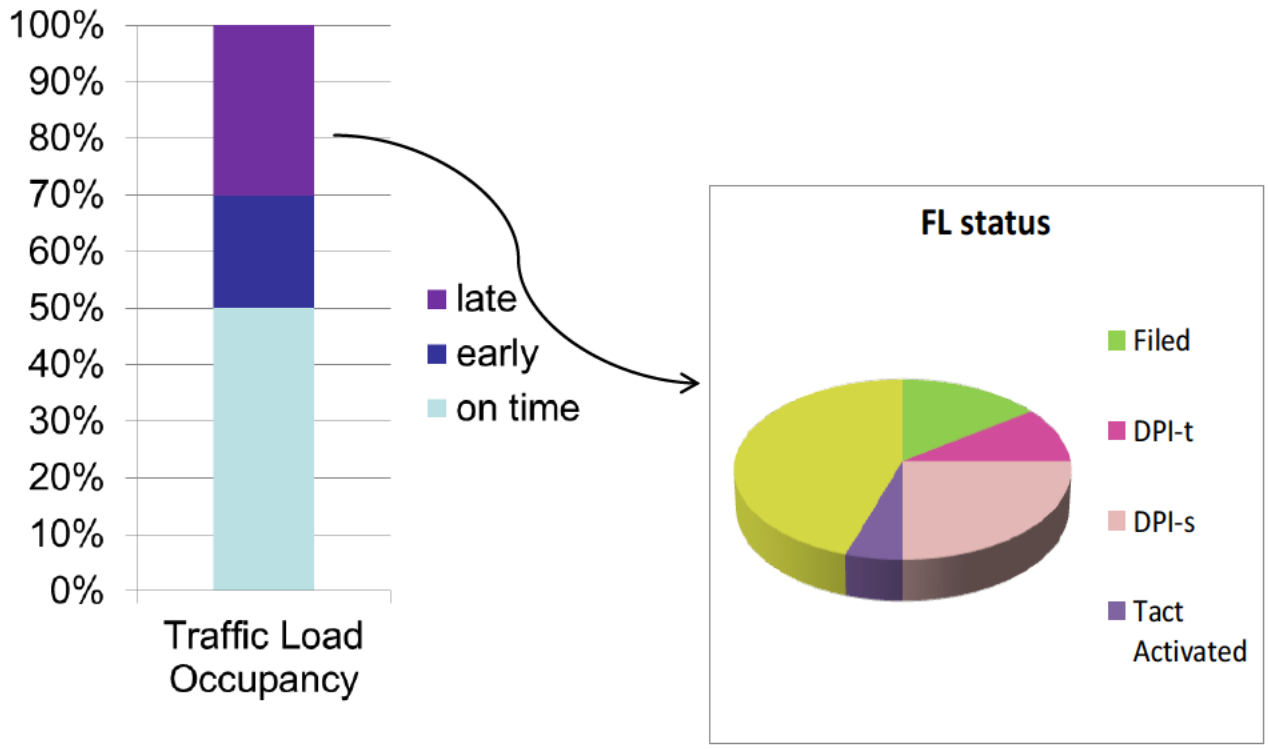
Late (+15, …) (+5, +15)

On time (-5, +5)

Early (-15, -5) (…, -15)

One bubble for bracket
Bubble size proportional to nr of flights in the brackets
Bubble position according to the time bracket it belongs
A click on the TL bar or the bubble will show the pie chart with the breakdown of the flights according to their status

3362

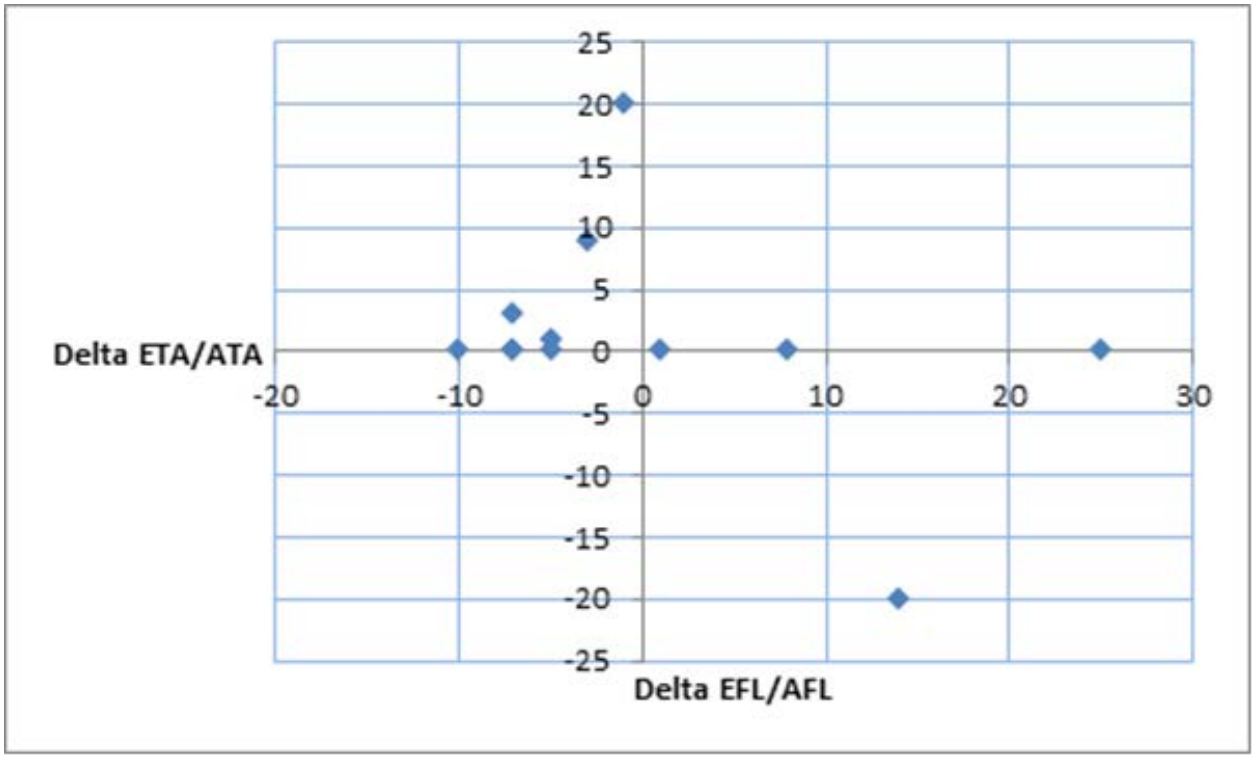


3363

3364 Adherence (FL and T) at entry sector

3365

3366



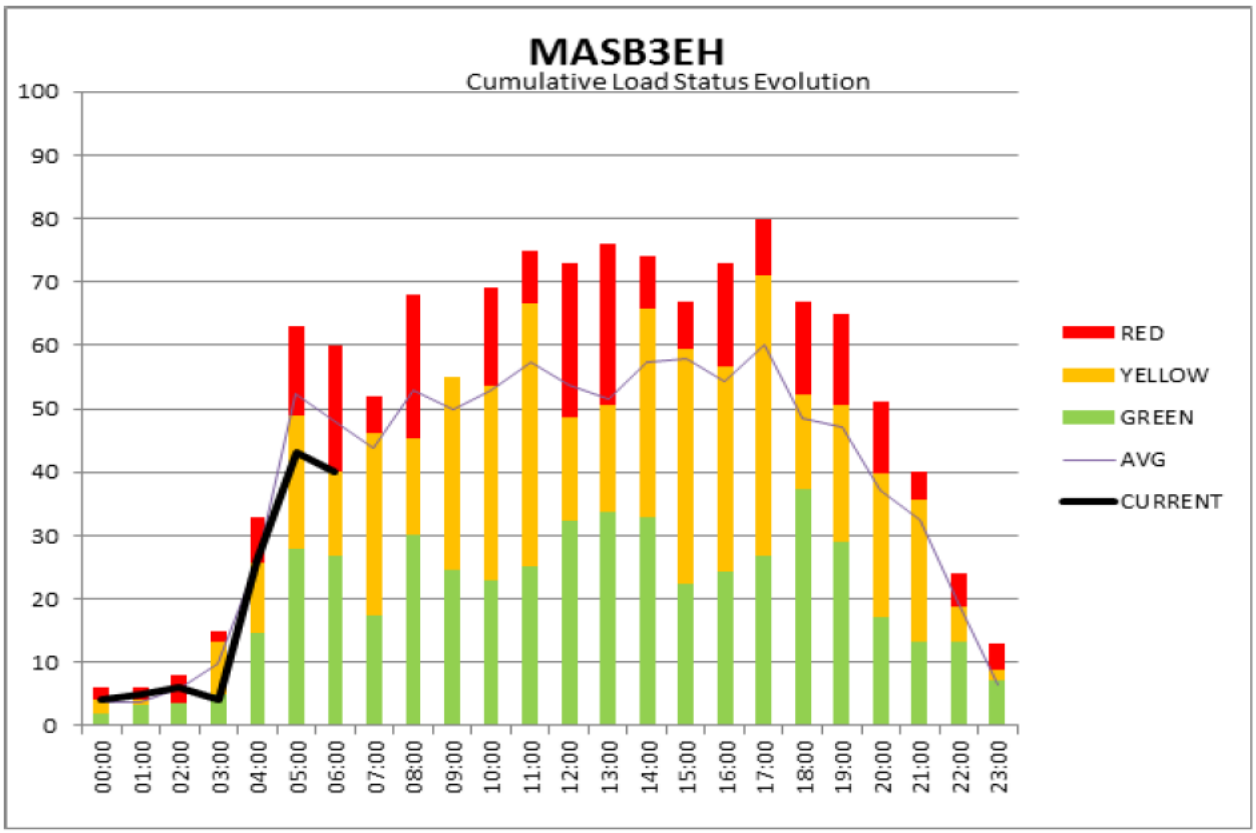
3367

3368 It can be used in post ops or on-line. It will identify flights that regularly enter the sector in a different
3369 flight level or later/early. NMOC can observe and take an action

3370

3371 Comparative Load status Evolution- CLOSE

3372



It helps to assess the load evolution of a day compared to a previous general behaviour.

Graph for a sector active or TV. It compares one day , e.g. a Monday, with a reference period that could be every Monday in the last 12 months etc..

Each bar is a breakdown (Red, green, yellow) of the reference period and the peak value of TL reached in that period.

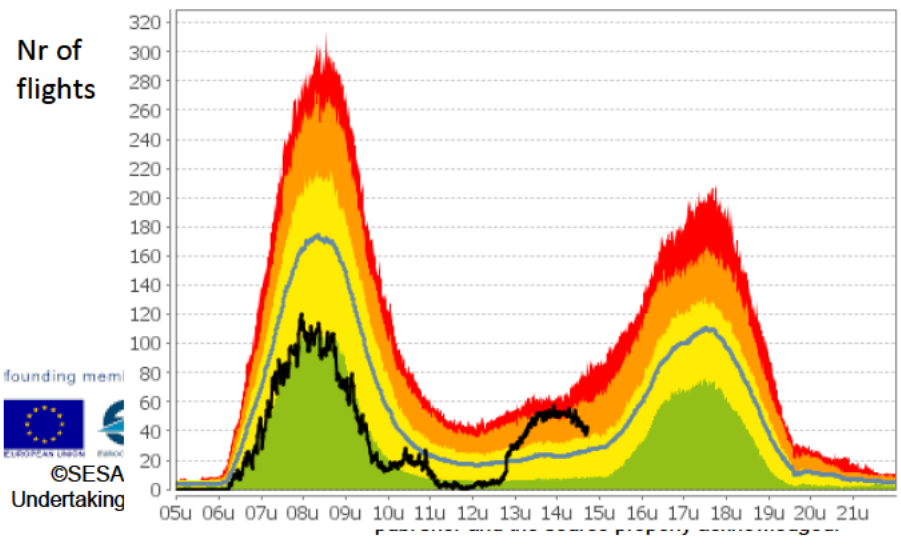
Red: Nr of days that the traffic load has been higher e.g. 15% than average

Green: Nr of days that the traffic load has been lower e.g. 15% than average

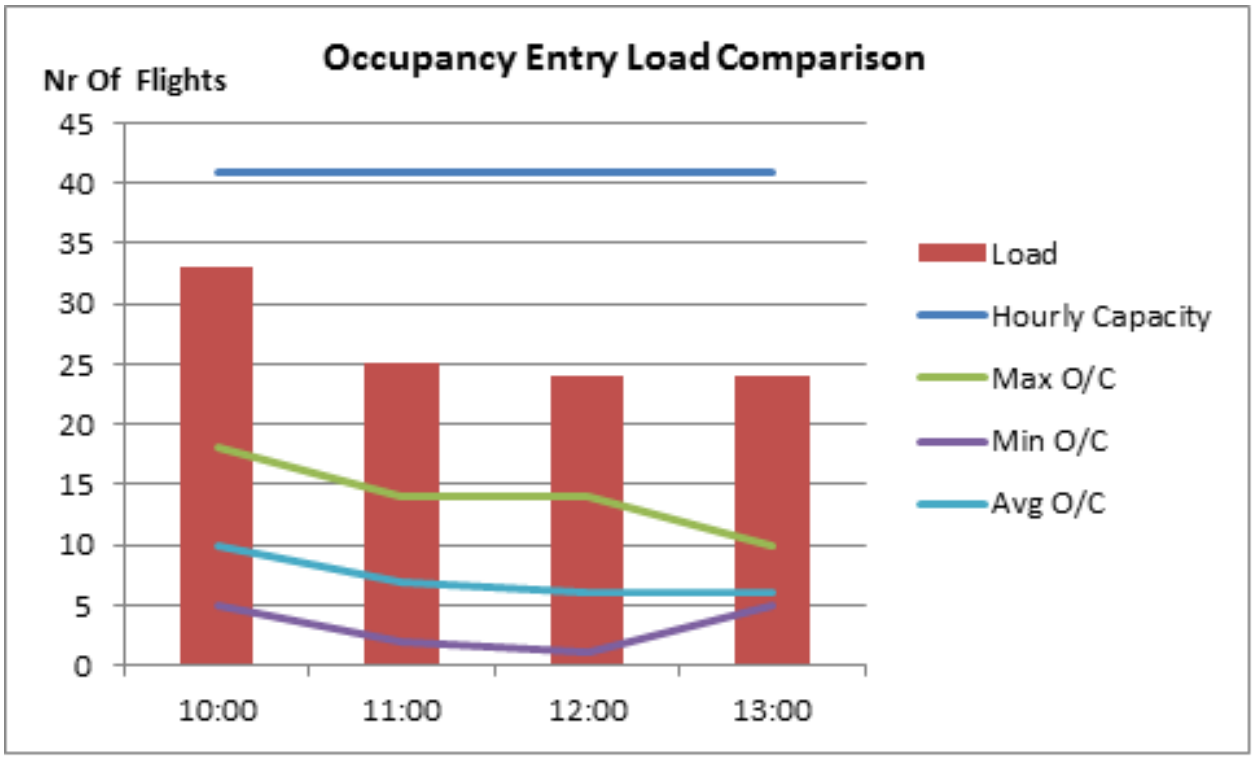
Yellow: the rest.

The average TL of the reference period and the forecasted TL (current line) are also provided.

Another representation for the CLOSE graph



3386 ## Entry-Occupancy Comparison Performance



3387

3388 It compares entry load with occupancy.

3389 The occupancy value is calculated as the average of the samples for each period of an hour (e.g. 60
3390 samples for 10:01, 10:02…10:59). During the same period we take the min and max value.

3391 It provides an idea of the variation of the occupancy counts. The closer the three occupancy values
3392 are, the more stable the value is. It can help to decide, in case of overload, on the type of measure
3393 STAM/reg. to apply.

Appendix C Deleted Requirements

[REQ]

Identifier	REQ-13.02.03-TS-0137.0001
Requirement	The TLO function shall provide the FMP Manager or the NM ATFCM Operator with a display of all OTMV definition details for a selected date and TV in his area of interest. These OTMV definitions should be in a listed form and in a dedicated HMI view which can be closed if not needed.
Title	UC:MANAGE_OTMV:VIEW_OTMV_DEFINITION
Status	<Deleted>
Rationale	OTMVs: Hotspot watch is an important activity of the FMP, see Occupancy traffic counts display example. The FMP uses Occupancy Traffic Count predictions (one per Traffic Volume of interest) on which he compares the occupancy counts with Occupancy Traffic Monitoring Values. The goal is to detected easily Demand Capacity imbalances. The parameters Count duration, Traffic Volume and time span (WEF and UNT) need to be set according operational considerations. If defined then the OTMVs are displayed. An upper horizontal line is OTMV Peak, a lower line is OTMV Sustained value. The FMP uses OTMVs for evaluating the necessity to create hotspots. In general the occupancy counts should be below the peak OTMV and not to often above the sustain OTMV. But the FMP's expertise is necessary to include other aspects (e.g. complexity, ATCO experience, …) for creation of hotspots
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0137.0003
Requirement	The TLO function shall enable the FMP Manager or the NM ATFCM Operator, currently viewing OTMV definition details for a TV, to update the OTMV definitions for the selected TV . As possible updates the TLO function shall allow to create new OTMVs and to edit existing OTMVs if these are still entirely in the future. OTMV parameters are: - time span (WEF and UNT) - overlap shall not be allowed - peak value - sustain value - shall be smaller than peak value
Title	UC:MANAGE_OTMV:MAINTAIN_TEMPORARY_OTMV_DEFINITION
Status	<Deleted>

Rationale	OTMVs: Hotspot watch is an important activity of the FMP, see Occupancy traffic counts display example. The FMP uses Occupancy Traffic Count predictions (one per Traffic Volume of interest) on which he compares the occupancy counts with Occupancy Traffic Monitoring Values. The goal is to detected easily Demand Capacity imbalances. The parameters Count duration, Traffic Volume and time span (WEF and UNT) need to be set according operational considerations. If defined then the OTMVs are displayed. An upper horizontal line is OTMV Peak, a lower line is OTMV Sustained value. The FMP uses OTMVs for evaluating the necessity to create hotspots. In general the occupancy counts should be below the peak OTMV and not to often above the sustain OTMV. But the FMP's expertise is necessary to include other aspects (e.g. complexity, ATCO experience, …) for creation of hotspots
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0137.0006
Requirement	The TLO function shall provide an Occupancy Traffic Count display to any of FMP Manager or NM ATFCM Operator. The Occupancy Traffic Count display shall show vertical occupancy count bars on a horizontal time line (WEF to UNT) for one particular TV. The height of a bar is the number of aircraft in the TV during the time slice corresponding to the bar width. The bars have equal width in one Occupancy Traffic Count display. The width is called "Count Duration". An Occupancy Traffic Count display is characterised by: - TV name - WEF - UNT - Count duration
Title	UC:VIEW_COUNTS:OCCUPANCY_TRAFFIC_COUNT_DISPLAY
Status	<Deleted>
Rationale	Occupancy Count Display: Hotspot watch is an important activity of the FMP, see Occupancy traffic counts display example. The FMP uses Occupancy Traffic Count predictions (one per Traffic Volume of interest) on which he compares the occupancy counts with Occupancy Traffic Monitoring Values. His goal is to detected easily Demand Capacity imbalances. The parameters Count duration, Traffic Volume and time span (WEF and UNT) need to be set according operational considerations. Count duration is the width of one occupancy count bar. The count (height of the bar) is the number of aircraft in the sector (Traffic Volume) during one Count Duration time period. If defined then the OTMVs are displayed as horizontal lines indicating the limit values. An upper line is OTMV Peak, the lower line is OTMV Sustained. The FMP uses OTMVs for evaluating the necessity to create hotspots. In general the occupancy counts should be below the peak OTMV and not to often above the sustain OTMV. But the FMP's expertise is necessary to include other aspects (e.g. complexity, ATCO experience, …) for creation of hotspots
Category	<Functional>
Validation Method	

Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0137.0009
Requirement	The FMP HMI shall show the initial profile (without STAM measure) in the horizontal, vertical and airspace displays. Already existing feature.
Title	CFMU_already_available_function1
Status	<Deleted>
Rationale	Superceded Operational necessity for STAM trials
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0136.0206
Requirement	When the user makes the appropriate HMI action to initiate a STAM, a STAM initiation form shall open, which shall be preset with: - hotspot (Traffic Volume, WEF, UNT) - flight details for each currently selected flight (callsign, ADEP, ADES, EOBT)
Title	UC: MANAGE_HOTSPOTS:EXPRESS_STAM_PROPOSAL_B
Status	<Deleted>
Rationale	Superceded Superceded.Superceded.The HMI should make the work of the user easy when possible.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0136.0306
Requirement	The STAM initiation form shall propose to fill in following items: - involved actors and their roles (role = 'Action', 'Inform' or 'None') - The STAM proposal text - coordination deadline (optional) hh:mm based on the currently selected flights and hotspot.
Title	UC: MANAGE_HOTSPOTS:EXPRESS_STAM_PROPOSAL_C
Status	<Deleted>

Rationale	Deleted because Superceded. Comes from OSED and data model proposed by NM
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0136.0201
Requirement	Hotspot creation default parameters shall be: - Traffic Volume name from the originating Occupancy Traffic Count display
Title	UC:MANAGE_HOTSPOTS:CREATE_HOTSPOT_B
Status	<Deleted>
Rationale	Superceded. The HMI should make the work of the user easy when possible.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0136.0301
Requirement	The hotspot creation parameters which then need to be specified shall be: - Time span (WEF and UNT) - Severity (low, medium, high) - State (Proposed or Intent)
Title	UC:MANAGE_HOTSPOTS:CREATE_HOTSPOT_C
Status	<Deleted>
Rationale	Deleted because Superceded. Comes from OSED and data model proposed by NM
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0136.0001

Requirement	When the FMP detects a risk of a demand capacity imbalance occurring within the time span displayed on the Occupancy Traffic Count display which he monitors then the TM function shall allow him to identify the imbalance as a Hotspot. Hotspot creation default parameters shall be: - Traffic Volume name from the originating Occupancy Traffic Count display The hotspot creation parameters which then need to be specified shall be: - Time span (WEF and UNT) - Severity (low, medium, high) - State (Proposed or Intent) The hotspot is displayed as shaded area on the Occupancy Count Display.
Title	UC:MANAGE_HOTSPOTS:CREATE_HOTSPOT
Status	<Deleted>
Rationale	Occupancy Count Display - Hotspot creation: Hotspot watch is an important activity of the FMP, see Occupancy traffic counts display example. The FMP uses Occupancy Traffic Count predictions (one per Traffic Volume of interest) on which he compares the occupancy counts with Occupancy Traffic Monitoring Values. The goal is to detected easily Demand Capacity imbalances. The parameters Count duration, Traffic Volume and time span (WEF and UNT) need to be set according operational considerations. Count duration is the width of one occupancy count bar. The count (height of the bar) is the number of aircraft in the sector (Traffic Volume) during one Count Duration time period. If defined then the OTMVs are displayed as horizontal lines indicating the limit values. An upper line is OTMV Peak, the lower line is OTMV Sustained. The FMP uses OTMVs for evaluating the necessity to create hotspots. In general the occupancy counts should be below the peak OTMV and not to often above the sustain OTMV. But the FMP's expertise is necessary to include other aspects (e.g. complexity, ATCO experience, …) for creation of hotspots.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0136.0204
Requirement	If a Hotspot is cancelled then the corresponding shaded area on the Occupancy Traffic Count display shall disappear, likewise the hotspot shall disappear from the hotspot list and the hotspot status change to Cancelled.
Title	UC:MANAGE_HOTSPOTS:DELETE_OR_INTERRUPT_HOTSPOT_B
Status	<Deleted>
Rationale	The hotspot leaves a trace of its previous existance to allow post operational analysis.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0136.0203
Requirement	The flight list returned for a hotspot shall contain, in addition to standard information (callsign, ADES, ADEP, EOBT, …), the DCB related information: - number of regulations and the most penalising regulation - number of hotspots - caught in STAM Y/N and in which hotspot
Title	UC:MANAGE_HOTSPOTS:DISPLAY_FLIGHTLIST_B
Status	<Deleted>
Rationale	Superceded Query hotspot flight list: When the FMP is looking for a flight to use in a STAM he would like to evaluate which flights are good candidates for STAM, on aspect of which is those with fewest constraints, and which will most effectively achieve the resolution of the hotspot. The list should support both aspects of the selection.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0136.2102
Requirement	There shall be an HMI function allowing the creater of any existing hotspot to effect the following state transitions that hotspot, constrained to these transitions: o Intent -> Proposed o Intent -> Cleared o Intent -> Cancelled o Proposed -> Cleared o Proposed -> Cancelled
Title	UC:MANAGE_HOTSPOTS:MODIFY_HOTSPOT_IIA
Status	<Deleted>
Rationale	Deleted because Superceded. Comes from OSED specification for Hotspot states
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0136.2202
Requirement	The HM function allowing hotspot state changes shall be at any time accessible from the hotspot list HMI

Title	UC:MANAGE_HOTSPOTS:MODIFY_HOTSPOT_IIB
Status	<Deleted>
Rationale	Superceded design decision
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0490.0103
Requirement	For the currently selected coordination, if any, the STAM Coordination function HMI shall show a table with the roles of involved actors in that coordination.
Title	UC:STAM_COORDINATION:CHANGE_INCHARGE_ACTOR_OR_REMOVE_ACTOR_A
Status	<Deleted>
Rationale	Superceded Explains the details view for the currently selected coordination
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0490.0203
Requirement	Actor roles shall be one of “Action”, “Inform” and “None”.
Title	UC:STAM_COORDINATION:CHANGE_INCHARGE_ACTOR_OR_REMOVE_ACTOR_B
Status	<Deleted>
Rationale	Deleted because Superceded. Comes from OSED
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0490.0303
Requirement	During validation exercised, any actor shall be able to change her/his role or that of any other actor for any coordination; to enable this the system shall give access to a table listing all actors and their roles.
Title	UC:STAM_COORDINATION:CHANGE_INCHARGE_ACTOR_OR_REMOVE_ACTOR_C

Status	<Deleted>
Rationale	Superceded Practical choice. As the business logic is being confirmed in this validation, it cannot be considered mature and hence the tool does not reinforce it.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0136.1002
Requirement	The HM function shall display existing hotspots in a listed form in a dedicated HMI view which can be closed if not needed. The HM function shall allow to edit existing hotspots from the list view: - modify end time only if it is in the future - modify anything else only if begin time is in the future (beg time, severity, state)
Title	UC:MANAGE_HOTSPOTS:MODIFY_HOTSPOT
Status	<Deleted>
Rationale	Occupancy Count Display - Hotspot modification: Hotspot watch is an important activity of the FMP, see Occupancy traffic counts display example. The FMP uses Occupancy Traffic Count predictions (one per Traffic Volume of interest) on which he compares the occupancy counts with Occupancy Traffic Monitoring Values. The goal is to detected easily Demand Capacity imbalances. The parameters Count duration, Traffic Volume and time span (WEF and UNT) need to be set according operational considerations. Count duration is the width of one occupancy count bar. The count (height of the bar) is the number of aircraft in the sector (Traffic Volume) during one Count Duration time period. If defined then the OTMVs are displayed as horizontal lines indicating the limit values. An upper line is OTMV Peak, the lower line is OTMV Sustained. The FMP uses OTMVs for evaluating the necessity to create hotspots. In general the occupancy counts should be below the peak OTMV and not to often above the sustain OTMV. But the FMP's expertise is important to include other aspects (e.g. complexity, ATCO experience, …) for creation of hotspots. Existing hotspots might need to be modified to adapt to traffic prediction updates. The modifications are possible through a hotspot list view. Past hotspots can not be modified anymore.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0136.2002

Requirement	The HM function shall allow following state transitions for existing hotspots: o Intent -> Proposed o Intent -> Cleared o Intent -> Cancelled o Proposed -> Cleared o Proposed -> Cancelled The state transition options shall be at any time accessible from the hotspot list.
Title	UC:MANAGE_HOTSPOTS:MODIFY_HOTSPOT_II
Status	<Deleted>
Rationale	Occupancy Count Display - Hotspot modification: Hotspot watch is an important activity of the FMP, see Occupancy traffic counts display example. The FMP uses Occupancy Traffic Count predictions (one per Traffic Volume of interest) on which he compares the occupancy counts with Occupancy Traffic Monitoring Values. The goal is to detected easily Demand Capacity imbalances. The parameters Count duration, Traffic Volume and time span (WEF and UNT) need to be set according operational considerations. Count duration is the width of one occupancy count bar. The count (height of the bar) is the number of aircraft in the sector (Traffic Volume) during one Count Duration time period. If defined then the OTMVs are displayed as horizontal lines indicating the limit values. An upper line is OTMV Peak, the lower line is OTMV Sustained. The FMP uses OTMVs for evaluating the necessity to create hotspots. In general the occupancy counts should be below the peak OTMV and not to often above the sustain OTMV. But the FMP's expertise is important to include other aspects (e.g. complexity, ATCO experience, …) for creation of hotspots. Existing hotspots might need to be modified to adapt to traffic prediction updates. The modifications are possible through a hotspot list view. Past hotspots can not be modified anymore.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0136.0003
Requirement	The HM function shall allow the FMP to query a flight list corresponding to a previously created hotspot. The query parameters Traffic Volume name and Count Duration (see REQ-13.02.03-TS-0137.0006) shall be preset from the Occupancy Traffic Count display in which the hotspot was created. The flight list shall contain in addition to CFMU standard information (callsign, ADES, ADEP, EOBT, …) the DCB related information: - no of regulations and the most penalising regulation - no of hotspots - caught in STAM Y/N and in which hotspot
Title	UC:MANAGE_HOTSPOTS:DISPLAY_FLIGHTLIST
Status	<Deleted>

Rationale	Query hotspot flight list: Hotspot identification is the main process by which a local actor (FMP) notifies the network (adjacent FMP, AO) of potential application of STAM (hotspot). The STAM application is linked to one particular flight. The flight is chosen from a flight list which corresponds to all flights in the hotspot.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0136.0004
Requirement	If a hotspot looses its relevance then the HM function shall allow the FMP who created the hotspot to cancel this hotspot. The cancel option shall be accessible from the hotspot list. Then the corresponding shaded area on the Occupancy Traffic Count display disappears and the hotspot disappears from the hotspot list and the hotspot status changes to Cancelled
Title	UC:MANAGE_HOTSPOTS:DELETE_OR_INTERRUPT_HOTSPOT
Status	<Deleted>
Rationale	Hotspot management: Hotspot identification is the main process by which a local actor (FMP) notifies the network (adjacent FMP, AO) of potential application of a STAM. The purpose of such notification(s) is/are to ensure that all concerned actors are able to perform assessment of the hotspot. This hotspot identification simply notifies the network of a hotspot (potential application of STAM) and should not be confused with 'Define/Refine/Implement STAM'. Optionally the FMP can create the hotspot locally (no notification to the network - Draft state) and publish it at any later point in time. The FMP might want to modify hotspot parameters; in particular hotspot extension to a later point in time will be used when traffic predictions change. Decrease in traffic predictions can lead to the necessity to cancel a hotspot.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0136.0005
Requirement	If a hotspot is solved then then the HM function shall allow the FMP who created the hotspot to clear this hotspot. The clear option shall be accessible from the hotspot list. Then the corresponding shaded area on the Occupancy Traffic Count display disappears and the hotspot disappears from the hotspot list and the hotspot status changes to Cleared.
Title	UC:MANAGE_HOTSPOTS:CLEAR_HOTSPOT
Status	<Deleted>

Rationale	Hotspot management: Hotspot identification is the main process by which a local actor (FMP) notifies the network (adjacent FMP, AO) of potential application of a STAM. The purpose of such notification(s) is/are to ensure that all concerned actors are able to perform assessment of the hotspot. This hotspot identification simply notifies the network of a hotspot (potential application of STAM) and should not be confused with 'Define/Refine/Implement STAM'. Optionally the FMP can create the hotspot locally (no notification to the network - Draft state) and publish it at any later point in time. The FMP might want to modify hotspot parameters; in particular hotspot extension to a later point in time will be used when traffic predictions change. Decrease in traffic predictions can lead to the necessity to clear a hotspot.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0136.0006
Requirement	The HM function shall allow the FMP to select one flight for a STAM from a hotspot flight list. The selection process should happen with the mouse only. Then a STAM initiation form shall open and the form shall be preset with: - hotspot (Traffic Volume, WEF, UNT) - flight details per selected flight (callsign, ADEP, ADES, EOBT) The form shall propose to fill in following items: - involved actors and their roles (role = 'Action', 'Inform' or 'None') - The STAM proposal text - coordination deadline (optional) hh:mm The form is validated with an 'enter' button.
Title	UC: MANAGE_HOTSPOTS:EXPRESS_STAM_PROPOSAL
Status	<Deleted>
Rationale	STAM Initiation from hotspot flight list: Hotspot identification is the main process by which a local actor (FMP) notifies the network (adjacent FMP, AO) of potential application of STAM (hotspot). The STAM applied to one particular flight. The flight is chosen from a flight list which the FMP queries for the hotspot.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0490.0001

Requirement	When the STAM initiator validated the STAM proposal (REQ-13.02.03-TS-0136.0006) then the SC function shall make the new STAM proposal accessible to all actors (role Action, Inform, None). For this purpose the SC function provides a STAM coordination window (to every actor) which displays a list of STAM coordination summaries. The SC function allows each actor to filter his list of coordination summaries. The possible STAM coordination summary list filters for each particular actor shall be: - filter 1: i. coordinations the actor is involved in as 'Action' or 'Inform' ii. all coordinations - filter 2: i. all flights ii. flights specified by flight id or parts of flight id, e.g. 'EZY' - filter 3: i. show proposed, implemented and coordinated coordinations ii. include abandoned and finished coordinations
Title	UC:STAM_COORDINATION:DISPLAY_NEW_COORDINATION_LINE
Status	<Deleted>
Rationale	STAM coordination window (list of coordination summaries): An FMP can select one or several flights from a hotspot related flight list in order to initiate a STAM for these flights. After initiation of a STAM coordination the new STAM proposal will be distributed to all actors (actor roles = Inform, Action or None). Every STAM actor uses a STAM coordination window which displays a list of all STAM coordination summaries. The coordination window with that list is the basic STAM working environment. The list is by default sorted (once when established) according STAM initiation time - latest on top. A summary of a new STAM proposal will be displayed in that list if the proposal passes the user's filtering parameters. The list of STAM coordination summaries allows to select one and only one STAM coordination in detail. The details of a selected coordination are displayed in an other part of the coordination window. E.g. the STAM coordination summary list is displayed in the upper half of the window, the details of one selected coordination is displayed in the lower part.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0490.1001
Requirement	The initial coordination state is 'Proposed' (meaning STAM proposed) From Proposed the SC function allows to go to o Coordinated (meaning STAM coordinated) o Abandoned (meaning STAM abandoned/canceled) From Coordinated the SC function allows to go to: o Implemended meaning implemented or to be implemented asap) o Abandoned (meaning STAM abandoned/canceled)
Title	UC:STAM_COORDINATION:COORDINATION_STATE

Status	<Deleted>
Rationale	STAM coordination window (list of coordination summaries): An FMP can select one or several flights from a hotspot related flight list in order to initiate a STAM for these flights. After initiation of a STAM coordination the new STAM proposal will be distributed to all actors (actor roles = Inform, Action or None). Every STAM actor uses a STAM coordination window which displays a list of all STAM coordination summaries. The coordination window with that list is the basic STAM working environment. The list is by default sorted (once when established) according STAM initiation time - latest on top. A summary of a new STAM proposal will be displayed in that list if the proposal passes the user's filtering parameters. The list of STAM coordination summaries allows to select one and only one STAM coordination in detail. The details of a selected coordination are displayed in an other part of the coordination window.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0490.0002
Requirement	The SC function shall allow an actor to select one and only one STAM coordination summary from his list of summaries, e.g. by double clicking on the summary line. The summary line shall be highlighted then and the SC function shall display the coordination's details corresponding to the selected summary in an other part of the window.
Title	UC:STAM_COORDINATION:SELECT_A_COORDINATION
Status	<Deleted>
Rationale	STAM coordination details: Every STAM actor uses a STAM coordination window which displays a list of all STAM coordination summaries. The coordination window with that list is the basic STAM working environment. The list of STAM coordination summaries allows to select one and only one STAM coordination in detail. The details of a selected coordination are displayed in an other part of the coordination window. E.g. STAM coordination summary list is displayed the upper half of the window, the details of a selected coordination is displayed in the lower part. The details contain the list of actors, the concerned flight and the list of exchanged messages during the coordination. The first message is the coordination's start and it contains the STAM proposal.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0490.1002

Requirement	The STAM coordination details shall contain: - list of actors with their respective roles - details of the concerned flight: callsign, ADEP, ADES, EOBT - the coordination status (initially 'Prposed') - last updated at hh:mm - coordination deadline hh:mm - a field for entering a new coordination message - list of all coordination message lines in chronological order A coordination message line shall contain: - Sender - time stamp - the text message
Title	UC:STAM_COORDINATION:COORDINATION_DETAILS
Status	<Deleted>
Rationale	STAM coordination details: Every STAM actor uses a STAM coordination window which displays a list of all STAM coordination summaries. The coordination window with that list is the basic STAM working environment. The list of STAM coordination summaries allows to select one and only one STAM coordination in detail. The details of a selected coordination are displayed in an other part of the coordination window. E.g. STAM coordination summary list is displayed the upper half of the window, the details of a selected coordination is displayed in the lower part. The details contain the list of actors, the concerned flight and the list of exchanged messages during the coordination. The first message is the coordination's start and it contains the STAM proposal.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0490.1101
Requirement	The initial coordination state shall be 'Proposed' - meaning STAM proposed
Title	UC:STAM_COORDINATION:COORDINATION_STATE_A
Status	<Deleted>
Rationale	Superceded From OSED requirement
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0490.1201

Requirement	From Proposed state the STAM Coordination function shall allow the user to change the state of the currently selected coordination to either o Coordinated (meaning STAM coordinated) o Abandoned (meaning STAM abandoned/canceled)
Title	UC:STAM_COORDINATION:COORDINATION_STATE_B
Status	<Deleted>
Rationale	Superceded From OSED requirement
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0490.1301
Requirement	From Coordinated state the STAM Coordination function shall allow the user to change the state of the currently selected coordination to either o Implemended meaning implemented or to be implemented asap) o Abandoned (meaning STAM abandoned/canceled)
Title	UC:STAM_COORDINATION:COORDINATION_STATE_C
Status	<Deleted>
Rationale	Superceded From OSED requirement
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0490.0301
Requirement	The STAM Coordination function shall allow each actor to filter the list of coordination summaries displayed. The possible STAM coordination summary list filters for any actor shall be: - filter 1: i. coordinations the actor is involved in as 'Action' or 'Inform' ii. all coordinations - filter 2: i. all flights ii. flights specified by flight id or parts of flight id, e.g. 'EZY' or 'BAW' - filter 3: i. show proposed, implemented and coordinated, but exclude abandoned and finished coordinations ii. show all coordinations including abandoned and finished coordinations
Title	UC:STAM_COORDINATION:DISPLAY_NEW_COORDINATION_LINE_C
Status	<Deleted>

Rationale	Superceded The user can choose to see coordinations of interest in different ways.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0490.0003
Requirement	The SC function shall show within the selected coordination details a table with the roles of involved actors in that selected coordination. The roles shall correspond to “Action”, “Inform” and “None”. The table includes all actors in the STAM trial. Any actor shall be able to change her/his role or that of any other actor for any coordination.
Title	UC:STAM_COORDINATION:CHANGE_INCHARGE_ACTOR_OR_REMOVE_ACTOR
Status	<Deleted>
Rationale	STAM coordination details: Every STAM actor uses a STAM coordination window which displays a list of all STAM coordination summaries. The coordination window with that list is the basic STAM working environment. The list of STAM coordination summaries allows to select one and only one STAM coordination in detail. The details of a selected coordination are displayed in an other part of the coordination window. E.g. STAM coordination summary list is displayed the upper half of the window, the details of a selected coordination is displayed in the lower part. The details contain the list of actors, their roles, the concerned flight and the list of exchanged messages during the coordination. The choice of how the Action role is used - what it means semantically - is not embedded in the tool.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0490.0004
Requirement	The SC function shall allow any actor with any role (role = Action, Inform or None) to contribute to a STAM coordination process. For this purpose the SC function provides a text field in the coordination details section for entering a new coordination message. A ‘Send’ button shall terminate the message writing. The SC function shall then make the message accessible for all actors.
Title	UC:STAM_COORDINATION:REPLY_CONTRIBUTE_COORDINATION
Status	<Deleted>

Rationale	STAM coordination details: Every STAM actor uses a STAM coordination window which displays a list of all STAM coordination summaries. The coordination window with that list is the basic STAM working environment. The list of STAM coordination summaries allows to select one and only one STAM coordination in detail. The details of a selected coordination are displayed in an other part of the coordination window. E.g. STAM coordination summary list is displayed the upper half of the window, the details of a selected coordination is displayed in the lower part. The details contain the list of actors, the concerned flight and the list of exchanged messages during the coordination. The exchanged messages are in chronological order. The first message is the coordination's start and it contains the STAM proposal, a new message will be added at the end of the message list.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0490.0005
Requirement	The SC function allows finalising a STAM coordination but only the FMP who intiated the coordination shall be allowed to finalise the coordination. I.e. to set the coordination's status to 'coordinated'.
Title	UC:STAM_COORDINATION:FINALISE_COORDINATION
Status	<Deleted>
Rationale	Superceded Every STAM actor uses a STAM coordination window which displays a list of all STAM coordination summaries. The coordination window with that list is the basic STAM working environment. The list is by default sorted (once when established) according STAM initiation time - latest on top. A summary of a new STAM proposal will be displayed in that list if the proposal passes the user's filtering parameters. The list of STAM coordination summaries allows to select one and only one STAM coordination in detail and clicking on one coordination summary allows the STAM coordination initiator FMP to change the coordinations' status: Initially the status is 'Proposed'. From there the coordination's initiator can change to 'Coordinated'. From 'Coordinated' he can change to 'Implemented'. But at any time, from any status, he can change to 'Abandoned'.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0490.0104
Requirement	The STAM Coordination function shall allow any actor with any role (role = Action, Inform or None) to contribute to a STAM coordination process.
Title	UC:STAM_COORDINATION:REPLY_CONTRIBUTE_COORDINATION_A

Status	<Deleted>
Rationale	Superceded Pragmatically, the view is taken that the forum is open and all participants are reasonable.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0490.0204
Requirement	The STAM Coordination function shall provide a text entry facility for the currently selected coordination. The field should be located in the coordination details section of the HMI.
Title	UC:STAM_COORDINATION:REPLY_CONTRIBUTE_COORDINATION_B
Status	<Deleted>
Rationale	Superceded Explains message sending for the currently selected coordination
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0490.0304
Requirement	A ‘Send’ button shall appear on the HMI near the text entry field. When a coordination is selected, pressing 'Send' shall add the text in the text entry field to the list of messages for that coordination.
Title	UC:STAM_COORDINATION:REPLY_CONTRIBUTE_COORDINATION_C
Status	<Deleted>
Rationale	Superceded Explains message sending for the currently selected coordination
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0490.0404
Requirement	The details of a coordination shall include a list of all previous messages for that coordination.
Title	UC:STAM_COORDINATION:REPLY_CONTRIBUTE_COORDINATION_D

Status	<Deleted>
Rationale	Superceded The messages are always retained. It is felt valuable that any participant can understand the current state by reading the history of the messages. Note that this is reinforced by 'system' messages appearing in the history to mark state changes or other significant updates.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0490.0102
Requirement	The STAM Coordination function shall allow an actor to select one and only one STAM coordination summary from his list of summaries, e.g. by double clicking on the summary line. The result shall be that the summary line shall be highlighted in the list.
Title	UC:STAM_COORDINATION:SELECT_A_COORDINATION_A
Status	<Deleted>
Rationale	Superceded Design decision; the HMI recycles some ideas from many modern email tools. The HMI lets the user see summaries of many coordinations but expands only one - the current one.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0490.0202
Requirement	From the list of coordination summaries either none or one may be selected by the user. In case one is selected, further details of the currently selected coordination in an other part of the HMI.
Title	UC:STAM_COORDINATION:SELECT_A_COORDINATION_B
Status	<Deleted>
Rationale	Superceded Reinforces the limit of 1 on the selected coordinations.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0137.0106
Requirement	The TLO function shall provide an Occupancy Traffic Count display to any of FMP Manager or NM ATFCM Operator.
Title	UC:VIEW_COUNTS:OCCUPANCY_TRAFFIC_COUNT_DISPLAY_A
Status	<Deleted>
Rationale	Superceded The FMP uses Occupancy Traffic Count predictions (one per Traffic Volume of interest) on which he compares the occupancy counts with Occupancy Traffic Monitoring Values. His goal is to detected easily Demand Capacity imbalances.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0137.0206
Requirement	The Occupancy Traffic Count display shall show vertical occupancy count bars on a horizontal time line (WEF to UNT) for one particular Traffic Volume (TV) in which the height of a bar shows the number of aircraft in the TV during the count duration that ends at the end time of the count period corresponding to the bar width.
Title	UC:VIEW_COUNTS:OCCUPANCY_TRAFFIC_COUNT_DISPLAY_B
Status	<Deleted>
Rationale	Superceded Description Deleted because Superceded. Comes from current practice. This feature is used already today.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0137.0306
Requirement	The bar width shall indicate “Count Period." The count shall made during the "Couint Duration”. Count Duration shall be equal to or greater than Count Period.
Title	UC:VIEW_COUNTS:OCCUPANCY_TRAFFIC_COUNT_DISPLAY_C
Status	<Deleted>
Rationale	Deleted because Superceded. Comes from current implementation.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0137.0406
Requirement	An Occupancy Traffic Count display shall be characterised by: - TV name - WEF - UNT - Count duration
Title	UC:VIEW_COUNTS:OCCUPANCY_TRAFFIC_COUNT_DISPLAY_D
Status	<Deleted>
Rationale	Deleted because Superceded. Comes from current implementation.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-0490.0007
Requirement	The SC function allows only the FMP who intiated a coordination to close this coordination when its relevance disappeared. I.e. to set coordination's status to 'abandoned'.
Title	UC:STAM_COORDINATION:CLOSE_COORDINATION
Status	<Deleted>
Rationale	Deleted because Superceded. Every STAM actor uses a STAM coordination window which displays a list of all STAM coordination summaries. The coordination window with that list is the basic STAM working environment. The list is by default sorted (once when established) according STAM initiation time - latest on top. A summary of a new STAM proposal will be displayed in that list if the proposal passes the user's filtering parameters. The list of STAM coordination summaries allows to select one and only one STAM coordination in detail and clicking on one coordination summary allows the STAM coordination initiator FMP to change the coordinations' status: Initially the status is 'Proposed'. From there the coordination's initiator can change to 'Coordinated'. From 'Coordinated' he can change to 'Implemented'. But at any time he can change to 'Abandoned'.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0002

Requirement	When requesting “normal” flight data, the system should only use real flight plan i.e. the flight plan transmitted by the client.
Title	
Status	<Deleted>
Rationale	This is a general requirement derived from a high level use case. A proposed flight takes precedence. But when no proposal exists for a flight, the normal flight is used instead. Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0003
Requirement	When requesting “proposal” flight data, the system shall use as priority a flight generated as proposal flight if it exists.
Title	
Status	<Deleted>
Rationale	A proposed flight takes precedence. But when no proposal exists for a flight, the normal flight is used instead. Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0004
Requirement	The HMI shall highlight when “proposal” flight plan data has been taken into account for the displayed data.
Title	
Status	<Deleted>
Rationale	This is a general user interaction requirement SUPERCEDED relating to proposal of flights. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0005
Requirement	When requesting a contextual action on displayed data, the system shall use the “normal” or “proposal” flight plan data selection for the count retrieval.
Title	
Status	<Deleted>
Rationale	This is a general requirement derived from a use case relating to proposal of flights. For example, if requesting the display of list of flights for a selected count instance, the target contextual action would for example be request proposal flight list when initiated from proposal counts. Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0006
Requirement	The system shall allow the user to choose between “normal” and “proposal” flight plan data selection when requesting to display values in the traffic counts functionalities.
Title	
Status	<Deleted>
Rationale	This is a count related requirement derived from a use case relating to proposal of flights Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0007
Requirement	The system shall allow the user to choose between “normal” and “proposal” flight plan data selection when requesting to display impact of ATFCM measures on traffic data in the Measures functionalities.
Title	
Status	<Deleted>
Rationale	This is a measure related requirement derived from a monitoring use case relating to proposal of flights. Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0008
Requirement	The system shall allow the user to choose between “normal” and “proposal” flight plan data selection when requesting to display flight related data in the different flights functionalities.
Title	
Status	<Deleted>
Rationale	This is a flight related general user interaction requirements (i.e. for flight lists, flight details …) Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0009
Requirement	The HMI shall highlight when a displayed flight is based on “proposal” flight plan data type.
Title	
Status	<Deleted>
Rationale	This is a flight related flight list user interaction requirements relating to proposal of flights Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0010
Requirement	When displaying the flight list for a cherry picked measure, the HMI shall clearly identify the flights which are impacted (i.e. non-exempted) by this cherry picked measure.
Title	
Status	<Deleted>
Rationale	This is a flight related flight list user interaction requirements. Superceded
Category	<HMI>
Validation Method	

Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0011
Requirement	The user should be able to easily identify in the slot list which flights belong to an OTMV count overload (i.e. the reason for the hotspot).
Title	
Status	<Deleted>
Rationale	This shows for a flight its worst occupancy count load state (i.e. does it belong to a peak or not).
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0012
Requirement	The Hotspot Flight List shall offer the user to choose between “normal” and “proposal” flight plan data selection.
Title	
Status	<Deleted>
Rationale	This allows flight list selection, but equally has a default if no specific user preference is given. When not forced by the calling function, the Hotspot Flight List queries for “proposal” flight plan data selection by default. Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0013
Requirement	The STAM Set Flight List shall use common query data elements with the main hotspot flight list.
Title	
Status	<Deleted>

Rationale	If not part of the same hotspot flight list view, the STAM set flight list uses a query data structure similar to the hotspot flight list so that both views can be aligned to facilitate above monitoring. Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0014
Requirement	The system shall allow the user to create a cherry picked regulation.
Title	
Status	<Deleted>
Rationale	This allows the creation of a regulation affecting only cherry picked flights Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0015
Requirement	Any Flight List shall allow the user to select one or more flights for subsequent actions
Title	
Status	<Deleted>
Rationale	This is a flight related flight list user interaction requirements Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0017
Requirement	The system shall allow an authorised user to initiate the creation of a new ATFCM measure from the different measure lists giving an overview of the existing measure coverage.
Title	
Status	<Deleted>

Rationale	This is a flight list related user interaction requirement Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0018
Requirement	The system shall allow an authorised user to request the addition of flights to an existing FMP Cherry Picked measure of Rerouting kind.
Title	
Status	<Deleted>
Rationale	The request is used to link these flights to the measure. This addition may be initiated from any kind of Flight List except the STAM Set Flight List (i.e. in this list, flights are already linked to a STAM intended at solving a hotspot) and the Flight List in the measure elaboration space. Clearly, the pre-selection of one or more flights is required to initiate this action. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0019
Requirement	The system shall allow the user to identify the main ATFCM measure kind when initiating the creation of a new measure.
Title	
Status	<Deleted>
Rationale	This is an flight requirement derived from a STAM use case Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0020

Requirement	The system shall allow the user to provide a measure identifier when initiating the addition of flight(s) to an existing FMP Cherry Picked measure.
Title	
Status	<Deleted>
Rationale	This is to identify the measure and is part of a flight requirement derived from a STAM use case Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0021
Requirement	When a measure is displayed as affecting a flight in any of the flight lists, an action shall allow the user to display it.
Title	
Status	<Deleted>
Rationale	This gives the possibly to edit the details for this measure in the measure elaboration space. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0023
Requirement	Depending on the way the measure elaboration space is called, the different sub-functionalities may display either filled information retrieved for an existing measure identifier or Empty/default information for the creation of a new measure
Title	
Status	<Deleted>
Rationale	The measure elaboration space does NOT allow the identification of a measure identifier to be retrieved but does allow the details to be retrieved Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0024
Requirement	The system shall make modifiable fields on the different tabs immediately accessible in update mode: - “Save” - “Cancel” - “Cancel Measure”
Title	
Status	<Deleted>
Rationale	The "Save” button action allows issuing the measure definition. The “Cancel” button action allows ignoring any input pending a save action and resets back the display to the measure definition as it is currently known by the system. The “Cancel Measure” button action is enabled as soon as a non cancelled and non terminated measure is displayed. The user must have specific measure update authorisation. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0025
Requirement	If user has only display authorisation, the system shall protect all fields .
Title	
Status	<Deleted>
Rationale	The user has specific measure display authorisation. In this case, the “Save” and “Cancel” button actions are hidden Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0027

Requirement	The ATFCM measure definition shall include the following information common to any measure kind: - Measure kind - mandatory/enumerated - Measure type - mandatory/enumerated - Measure sub-type - mandatory/enumerated - Measure identifier - mandatory - Measure activity status - mandatory/enumerated - Externally editable - mandatory/boolean - Measure period - mandatory - Measure description - optional - M-CDM required - mandatory/boolean - Hotspot identification - mandatory
Title	
Status	<Deleted>
Rationale	These are part of the data requirements; for definition and enumerated values, when applicable. Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0028
Requirement	When initiating the creation of a new ATFCM measure of any kind, the system shall display the following definition fields with the following default values. - The measure kind is forced to the one chosen when initiating the creation and is not further modifiable. - The measure type is initialised to (See also other requirements on initialisation of subsequent data elements related to measure type): -- FMP Cherry Picked, if one or more flights were selected on initiating measure creation - M-CDM required is initialised to “No” and remains modifiable for delay and rerouting kind with related M-CDM state displayed as “N/A” - Traffic Volume input field is left empty unless the measure creation was invoked from a Traffic Volume Flight List in which case this Traffic Volume identifier is proposed by default. - WEF/UNT date pickers of the measure period and the hotspot date picker are set to target date of the view that invoked the measure editor.
Title	
Status	<Deleted>

Rationale	These are part of the data requirements. All these fields are further modifiable unless specifically stated. See also specific initialisation requirement when measure creation is initiated from a Hotspot Flight List. The following input fields are left empty: - Measure identifier - Measure sub-type selection (i.e. no type pre-selected) See specific requirements for possible sub-types per ATFCM measure kind. - WEF/UNT times of the period of the measure - Hotspot identification - Traffic Volume Set (FMP/Delay) The system may use the traffic volume set list with the selected target date to populate a drop down list or support input auto completion functionality Minimum and maximum flight levels and Protected location are not displayed Note: Measure creation requires specific update authorisation. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0029
Requirement	When the creation of a new ATFCM measure of any kind is initiated from a Hotspot Flight List, following definition fields shall have following specific initialisation rules. - M-CDM required is initialised to “Yes” with related M-CDM state displayed as blank while the measure is not yet created. - Hotspot identification is initialised to the hotspot object of the flight list
Title	
Status	<Deleted>
Rationale	These are part of the data requirements. All these fields are further modifiable unless specifically stated. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0030
Requirement	The measure identifier shall only be adjustable before the measure is created in the system.
Title	
Status	<Deleted>

Rationale	These are part of the data requirements. In case of Delay measure type, the two last positions or the two last-1 positions normally contain the identification of the day when it is applicable (ex: xxxxxddx, xxxxxxdd …) Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0031
Requirement	The system shall set the measure status to blank before the measure is created.
Title	
Status	<Deleted>
Rationale	These are part of the data requirements. Once the measure is created, the status is reflecting one of the enumerated values as managed by the ETFMS system (i.e. regulation and rerouting respective activity state in ETFMS). Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0032
Requirement	The system shall set the target date to blank before the measure is created.
Title	
Status	<Deleted>
Rationale	These are part of the data requirements for user interaction. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0033

Requirement	When displaying an existing measure, the system shall set the target date to be equal to the WEF date of the regulated period.
Title	
Status	<Deleted>
Rationale	These are part of the data requirements for user interaction. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0034
Requirement	When initiating the creation of a new measure with M-CDM required ON, the system shall display the following M-CDM fields with default values: - M-CDM state defaults to entry “Draft” from the drop down list populated with all possible states. - Initiator defaults to the actor associated to the user requesting the measure creation. -The M-CDM rules definition table is initially empty. -- Title of the table is “Generate M-CDM for” -- Possible M-CDM levels are listed in column headers -- Possible M-CDM user categories are listed in row headers -- Each cell is defaulted according to the measure type/subtype - For Time to coordinate by, Time to start implementation by and Time to implement by: -- Time control are forced to the start time of the measure period -- Date pickers are initialised to the start date of the measure period -- The user is able to select another date and adjust time
Title	
Status	<Deleted>
Rationale	These are part of the data requirements for user interaction. The default initiator is proposed by the system but remains adjustable by the user. Each cell corresponds to role “Not involved” - not displayed to avoid overloading displayed table) and can be adjusted to one of the different possible M-CDM roles from a drop down list See also ad-hoc M-CDM rules initialisation requirement for specific measure creation cases Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0036
Requirement	Following definition elements of a delay measure shall only be adjustable when creating a new measure: - Measure kind - Measure type and sub-type - Traffic Volume - Traffic Volume Set
Title	
Status	<Deleted>
Rationale	These are part of the data requirements. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0037
Requirement	The following measure definition elements shall always be modifiable for delay measures: - Hotspot identification - Measure period except the WEF date which must remain identical to the value assigned at creation (i.e. regulation identifier contains date reference) - Window width - Reason - Traffic volume description - Measure description - Update capacity - Update traffic volume activation - Sub-Periods - Supplementary-Rates - M-CDM required which may only be set from “No” to “Yes” (i.e. Interrupting M-CDM is done by adjusting the M-CDM state).
Title	
Status	<Deleted>
Rationale	These are data requirements for user interaction. Note: editing a measure which is terminated or cancelled is possible as this might generate a proposal measure update Note: initially other validations like a maximum of 24 hours elapse for a regulation will only be implemented on the ETFMS server and returned to the client as an error message. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0038
Requirement	The system shall ensure that measure modification is restricted to users with sufficient authorisation.
Title	
Status	<Deleted>
Rationale	This is to ensure that only the FMPs can update measures Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0039
Requirement	The set of measure definition data elements shall depend on the selected ATFCM measure kind.
Title	
Status	<Deleted>
Rationale	This is a measures related business rule Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0040
Requirement	Once the new or updated definition of the intended measure is keyed in possibly with related constraints, the system shall submit it for validation, resulting in possibly draft M-CDM and/or proposal activation by the system.
Title	
Status	<Deleted>

Rationale	The user is requested to confirm the measure update and, depending on the measure states (see below) may have to identify explicitly (i.e. detailed descriptive text is important to highlight consequence of this choice): - if this update should be applied directly on the edited normal measure - or if this update should generate a proposal to be further approved or rejected If there is an active proposal for the edited measure, direct update of the normal measure is NOT a valid alternative. Note: Direct update and proposal updates have specific authorisation use cases. Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0041
Requirement	The system shall identify the impact of the “normal” delay measure edition by the edit kind.
Title	
Status	<Deleted>
Rationale	It is derived as follow: - Edit whenever the delay measure definition is new (i.e. measure does not exist yet) - Shallow Rectify is used when the update is limited to adding/removing flights to/from an existing delay measure. - Deep Rectify is used whenever any update is applied to an existing delay measure. The edit kind is not relevant for proposal measure as impact on flights is not computed until the proposal measure is accepted by the (Pre-) Tactical Network Manager Operator. Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0042

Requirement	The system shall define a measure of delay type using the following constraint data elements: - Traffic Volume (i.e. the location on which the measure is applied) - mandatory - Traffic Volume description (i.e. default is the ENVironment source but it can be overwritten by the user) - mandatory - Traffic Volume Set (i.e. Accountable for the impact of the measure) - Mandatory - ANM remark - Optional - Regulation Note - Update capacity indicator - Update Traffic Volume activation indicator - Publication status - Window width value - Mandatory - Protected location - Mandatory - Linked regulations - Optional - Auto link indicator - Sub-periods definition - Mandatory - Supplementary-rates definition - Optional
Title	
Status	<Deleted>
Rationale	These are part of the data requirements. Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0043
Requirement	The following definition data elements shall NOT be displayed to the user for a measure of delay kind, but used by the system - Regulation note - Publication status forced to ”Stored - Never Published”
Title	
Status	<Deleted>
Rationale	These are forced to the default values Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0044

Requirement	The system shall default the value of the Traffic Volume Set and/or the Traffic Volume Description if left empty when requesting the creation of a new measure, with the system taking automatically the corresponding definition retrieved from ENV(ironment) database source for the associated Traffic Volume.
Title	
Status	<Deleted>
Rationale	Traffic Volume Set (FMP/Delay) is set to the monitoring traffic volume set (i.e. the traffic volume set containing the traffic volume) Traffic Volume Description (ANM) is set to the default description known in the environment definition of this traffic volume The Minimum / maximum flight levels and Protected location being non editable in the measure editor, they are always derived from ENVironment source for the associated Traffic Volume. Minimum and maximum flight levels are associated with the related reference location of the Traffic Volume Protected location is set to the identifier of the protected location identified in the traffic volume definition. It is only relevant if different from the reference location of the traffic volume. When the Traffic Volume identifier is blank or invalid, the data elements are displayed as empty value. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0045
Requirement	When the creation of a new ATFCM measure of delay kind is initiated from a Hotspot Flight List, the following definition fields shall have specific initialisation rules as follow. - The applicability period of the measure is initialised to the start of the hotspot minus thirty minutes (-30min) and the end of the hotspot plus thirty minutes (+30min) possibly leading to different date between WEF and UNT - The traffic volume associated to the measure is initialised to the one on which the hotspot is defined
Title	
Status	<Deleted>
Rationale	These fields have initial values but are further modifiable unless specifically stated. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0046
Requirement	If M-CDM is required, the measure shall have exactly one initiator (sometimes referred to as creator).
Title	
Status	<Deleted>
Rationale	Sometimes collaboration (M-CDM) is required. In this case there must be own owner who controls the collaboration process. This is the initiator/creator of the measure Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0047
Requirement	The system shall default the initiator to the actor identifier from the user that is creating the measure.
Title	
Status	<Deleted>
Rationale	This is a measure related business rule. Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0051
Requirement	Measures shall have three M-CDM deadlines corresponding to the following M-CDM state transitions: (Acronym = Expansion = State transition) - TTC = Time to coordinate by = From Proposed to Coordinated - TTS = Time to start implementation by = From Coordinated to For_Impl - TTI = Time to implement by = From For_Impl to Implemented.
Title	
Status	<Deleted>

Rationale	These deadlines are set at creation of the measure but may be updated during the life of the measure. At creation time, all deadlines should be in the future. TTC should not be after the other two. TTS should not be after TTI. Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0053
Requirement	The system shall allow the list of approver actors for a specific flight to be manually modified (typically extended) by the Initiator when the flight M-CDM state is Proposed (for that measure).
Title	
Status	<Deleted>
Rationale	Newly added actors approval is initialised as Unknown. Deleted actors (or actors with a role “not involved” approval state should be hidden. Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0054
Requirement	If the user removes some actors/puts their role to “not involved”, then the system shall set any associated approval state info related to that actor to abandoned
Title	
Status	<Deleted>
Rationale	In this case, the information is kept but hidden. Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

3753 [REQ]

Identifier	REQ-13.02.03-TS-3501.0055
Requirement	The system shall allow the list of approver actors for a specific measure to be manually modified (typically extended) by the Initiator when the measure M-CDM state is Proposed.
Title	
Status	<Deleted>
Rationale	This is a measure related business rule. Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

3754

3755 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

3756

3757 [REQ]

Identifier	REQ-13.02.03-TS-3501.0056
Requirement	The system shall initialise any newly added actor approval status to Unknown.
Title	
Status	<Deleted>
Rationale	This is a measure related business rule. Initially, it is not known whether any new actor needs to give approval or not. This must be filled in by the initiator. Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

3758

3759 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

3760

3761 [REQ]

Identifier	REQ-13.02.03-TS-3501.0057
Requirement	Deleted actors (or actors with a role “not involved” approval state) should be hidden.
Title	
Status	<Deleted>
Rationale	This is a measure related user interaction requirement. Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

3762

3763 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

3764

[REQ]

Identifier	REQ-13.02.03-TS-3501.0060
Requirement	The system shall only accept manual State transitions except in rare cases when the system can detect the state change
Title	
Status	<Deleted>
Rationale	This may be, for example, because the system has received information from outside that affects a flight (eg: a CHG message has arrived that updates the flight data causing a state change). Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0061
Requirement	The system shall process the automatic state change To Abandoned
Title	
Status	<Deleted>
Rationale	This is when the measure is cancelled / put in abandoned, the measure M-CDM state and the flight M_CDM state are also put to abandoned. In all STAM where this is not the case the implementer must make the state change manually, and needs to be aware of this obligation Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0062
Requirement	The system shall process the automatic state change To Interrupted
Title	
Status	<Deleted>

Rationale	This is when the flight changes such that; - The proposal flight could not be kept - Or the flight is no longer crossing the regulation within the regulation period - Or the flight gets unforced - Or the flight gets cancelled. - Or when the measure is cancelled by the back-end system, the measure M-CDM state and the flights M-CDM states are also put to Interrupted. In all STAM where this is not the case the implementer must make the state change manually, and needs to be aware of this obligation Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0063
Requirement	The system shall only accept manual transitions from Proposed state to Coordinated, as made by the initiator.
Title	
Status	<Deleted>
Rationale	The system does not enforce any dependency on the approvals given by the approvers, nor 'aid' the user by making the change automatically. This is done for two reasons: - The Initiator is able to add more collaboration partners - all approve may not be the final state. The rejection of one partner may be overtaken by a text messages or telephone conversation. The user may undo a state change to allow recovery from human error, except in the case where the initiator changes state to For_Impl, the undoing of which requires that he/she coordinate with the implementer. Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0064
Requirement	The state "Finished" shall indicate that the hotspot, and hence the measure, is cleared and now in the past.
Title	
Status	<Deleted>
Rationale	This indicated that the hotspot/measure is no longer relevant as the situation has passed. Data requirement: It may be omitted as a state if necessary in the underlying data model. Superceded

Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0066
Requirement	When not forced by the calling function, the Flight List in the measure elaboration space shall always query for “proposal” flight plan data selection by default.
Title	
Status	<Deleted>
Rationale	The Flight List in the measure elaboration offers the user to choose between “normal” and “proposal” flight plan data selection, but defaults to “proposal” . Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0067
Requirement	The following functions listing flights for a measure shall offer the possibility to initiate the remove action of selected flights from a cherry picked measure: - Hotspot flight list - Regulation flight list - Flight list in the measure elaboration space
Title	
Status	<Deleted>
Rationale	These are part of the flight list user interaction requirements. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0068
Requirement	To submit the flight removal request for a selected flight, the system shall allow the user to first identify: - The cherry picked measure identifier - And the associated measure kind.

Title	
Status	<Deleted>
Rationale	These are part of the flight list user interaction requirements. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0069
Requirement	The system shall use the regulation list query/reply with the target date selected for the initiating flight list to populate a cherry picked measure drop down list or support input auto completion functionality.
Title	
Status	<Deleted>
Rationale	This is to facilitate the choice of an existing cherry picked measure from which a flight is to be removed, This regulation list query/reply is used to propose automatically the corresponding measure kind. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0070
Requirement	The system shall allow the user to send the remove flight action request per flight once the required details are entered.
Title	
Status	<Deleted>
Rationale	This is a flight related requirement for flight list user interaction
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0071
Requirement	The system shall let the user cancel the remove flight action request per flight.

Title	
Status	<Deleted>
Rationale	The flight is then removed from the candidate list for remove action. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0072
Requirement	When a remove flight request is successful for one flight, the system shall display a result message and disable related input controls.
Title	
Status	<Deleted>
Rationale	User feedback is necessary Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0073
Requirement	When a remove flight request fails for one flight, the system shall display the result message and enable related input controls to initiate subsequent request.
Title	
Status	<Deleted>
Rationale	Possible reasons for failure exist: - Selected measure is not an FMP Cherry Picked measure - Flight is not in the cherry picked list of the selected measure Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0075

Requirement	The following functions listing flights for a measure shall offer the possibility to initiate the force CTOT action of selected flights in a cherry picked measure of delay kind: - Hotspot flight list - Regulation flight list - Flight list in the measure elaboration space
Title	
Status	<Deleted>
Rationale	This is a flight related requirement for flight list user interaction Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0076
Requirement	The system shall allow the user to indicate: - If the current M-CDM state should be reset to Proposed (i.e. otherwise left as it is) - If the already recorded voting should be reset (i.e. otherwise left as it is)
Title	
Status	<Deleted>
Rationale	This occurs once the updated definition of a measure with M-CDM required is submitted to the system, while M-CDM state is no more Draft. The initiator may decide not to reset these immediately and adjust them manually later on, using the M-CDM tool. Following default values for these reset options is forced each time the selection between direct update or generate proposal measure is adjusted: - When direct update is selected, both reset options are defaulted to Yes - When generate proposal measure is selected, both reset options are defaulted to No They can be subsequently adjusted before submission. Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0078
Requirement	The system shall provide contextual direct access to the measure editor
Title	
Status	<Deleted>

Rationale	Following business functions implement contextual direct access to the measure editor displaying definition details for the selected ATFCM measure: - From a measure identified as affecting a flight in a flight list or flight detail display. - From a measure listed in the delay, or the rerouting measure list display. - From a measure listed in the ATFCM Situation Display (ASD) - From the regulation delay details for a measure from the Interactive Map- From a measure identified in a topic displayed in the measure collaborative decision making tool (M-CDM) Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0079
Requirement	The system shall list separately the different kind of ATFCM measures.
Title	
Status	<Deleted>
Rationale	For clarity and to avoid confusion. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0080
Requirement	Each measure list (i.e. one per kind of measure) shall display, by default, only the active and planned to be active measures (i.e. not cancelled, terminated or proposal).
Title	
Status	<Deleted>
Rationale	Defaults exist, but the user is able to request extending the list to all measures (i.e. including cancelled and terminated measures). In combination with active filtering, the user is able to request including the proposal measures in the list (i.e. outstanding proposal or proposals already handled by NMC). Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0081
Requirement	Each measure list (i.e. one per kind of measure) shall include following common set of information per measure: - The measure identifier, the type, the kind and sub-type and activity state (active, terminated, cancelled …) -The measure collaboration decision making state (M-CDM), if applicable with the next deadline time identified - The location on which the measure is defined; the traffic volume identification relevant for FMP workflows and the detailed reference location relevant for AOs' understanding - The applicability period of the measure - The period of the hotspot associated to the measure - The reason associated to the M-CDM measure
Title	
Status	<Deleted>
Rationale	This provides authorised actors with a high level view and support collaborative decision making while elaborating and implementing any ATFCM measure The measure identifier implements a link to the measure editor for that measure The measure collaboration state implements a link to the M-CDM tool details for that measure The period implements a link to the occupancy counts on which this hotspot is defined Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0082
Requirement	The system shall manage the delay measure edit type
Title	
Status	<Deleted>
Rationale	It is not displayed to the user. This is to avoid over-complexifying the measure editor intended for external users Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0083
Requirement	The ATFCM measure definition shall include the following information specific for Delay kind: - Traffic Volume (i.e. the location on which the measure is applied) - mandatory - Traffic Volume Description (ANM) (i.e. default is the ENVironment source but it can be overwritten by the user) - mandatory - Traffic Volume Set (FMP/Delay) (i.e. Entity accountable for the impact of the measure) - Mandatory - Protected location - Mandatory - Minimum and maximum flight levels associated with the regulated reference location - Mandatory - Regulation Note - Optional - Update capacity indicator - mandatory/boolean - Update Traffic Volume activation indicator - mandatory/boolean - Measure reason - mandatory - Publication status - mandatory/enumerated - Window width value - Mandatory - Linked regulations - Optional - Auto link indicator - mandatory/boolean - Sub-periods definition - Mandatory (1 to n) - Start and end date and time of the sub-period - mandatory - Normal rate - mandatory/numeric (a number of flights per hour) - Pending rate - optional/numeric (a number of flights per hour) - Required Equipment Type - mandatory/enumerated, and if different from none, the associated Equipment Rate - numeric - Exceptional condition - mandatory/boolean - Runway Visual Range - optional/numeric - Flight Confirmation Message - mandatory/boolean - Flight Shift - mandatory/boolean - Supplementary-rates definition - Optional (0 to n) -- Start and end date and time of the supplementary-period - mandatory -- Supplementary rate - mandatory/numeric (a number of flights per hour)
Title	
Status	<Deleted>
Rationale	Addition support information to the definition elements common to any measure kind described earlier “(ANM)” is appended to the caption for measure of Delay kind to remind that this field may be used in ANM publication whenever relevant. “(FMP/Delay)” is appended to the caption for measure of Delay kind as this will be used to identify the FMP that will be considered responsible for measure’s impact. End date and time is not showed on display as it can be identified either by the start of the next sub-period in chronological sequence, if one exist, or by the end of the measure period. Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0084

Requirement	Default values shall exist for the following (i.e. these measure definition data elements are NOT modifiable using external HMI for a TACT measure of M-CDM kind [i.e. a regulation]): - Window width is forced to 10 minutes - Linked regulations forced to none defined - Auto link forced to “No” - Sub-Periods forced to: - One period covering the complete regulated period where: - Normal rate is set to 60 (i.e. Not relevant for such M-CDM measure but value is required by ETFMS. One slot per minute will optimise EHMI slot list display.) - Pending rate is set to 0 (zero) - Required equipment type is set to “None” - Equipment rate is set to 0 (zero) - Exceptional condition (XCD) is set to “No” - Supplementary-Rates is forced to none defined (i.e. 0 periods)
Title	
Status	<Deleted>
Rationale	Reasonable definition data default values are taken. This enables the reuse of the regulation mechanisms to support STAM Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0085
Requirement	When initiating the creation of a new ATFCM measure of delay kind, the system shall display the following definition fields with the following default values. - Update Traffic Volume activation is forced to “Yes". - Measure sub-type is empty - Window width is forced to 10 minutes - Linked regulations forced to none defined - Auto link forced to “No”
Title	
Status	<Deleted>
Rationale	All these fields have default values but are further modifiable (unless specifically stated). See also specific initialisation requirement when measure creation is initiated from a Hotspot Flight List Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0086
Requirement	Each time the measure type is forced to FMP Cherry Pick measure during the definition of a new measure, the following default value definition shall apply: - Update capacity is set to “No” for delay kind - Measure description is set to “FMP CHERRY PICK” for any measure kind - Measure reason is set to “Other” for delay measure kind - Sub-Periods is defined as: (for delay measure kind) -- One period covering the complete regulated period where: -- Normal rate is set to 60 -- Pending rate is set to 0 (zero) -- Required equipment type is set to “None” -- Equipment rate is set to 0 (zero) -- Exceptional condition (XCD) is set to “No” (See other requirement on initialisation of subsequent data elements related to XCD) - Supplementary-Rates is set to none defined (i.e. 0 periods) for delay measure kind
Title	
Status	<Deleted>
Rationale	Subsequent related fields need to be reset Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0088
Requirement	The system shall display the following important data elements as static text next to the measure identifier: - Measure kind - Target date - Measure status - M-CDM status - Externally editable
Title	
Status	<Deleted>
Rationale	This is a measures related requirement for user interaction Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0089

Requirement	The system shall display the M-CDM state as “N/A” or blank before the measure is created.
Title	
Status	<Deleted>
Rationale	This is the default, but once the measure is created, the M-CDM state is reflecting one of the enumerated values Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0090
Requirement	When displaying an existing measure of delay kind, a link shall display detailed regulation delays figures for that measure.
Title	
Status	<Deleted>
Rationale	Ease of use This is a measures related requirement for user interaction Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0091
Requirement	When displaying an existing measure of delay kind, the system shall display the minimum and maximum flight levels and protected location for the traffic volume on which the measure is defined.
Title	
Status	<Deleted>
Rationale	This is a measures related requirement for user interaction Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

3877 [REQ]

Identifier	REQ-13.02.03-TS-3501.0092
Requirement	When displaying a proposal measure (i.e. active or terminated), a link shall display the details for the corresponding normal measure .
Title	
Status	<Deleted>
Rationale	This is the measure on which this proposal should be or was possibly applied. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

3878
3879 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

3880
3881 [REQ]

Identifier	REQ-13.02.03-TS-3501.0093
Requirement	When displaying a normal measure for which a proposal measure exists (i.e. active or terminated), a link shall display the details for the corresponding proposal measure.
Title	
Status	<Deleted>
Rationale	Ease of use This is a measures related requirement for user interaction Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

3882
3883 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

3884
3885 [REQ]

Identifier	REQ-13.02.03-TS-3501.0095
Requirement	The flight list shall show for a flight its worst count load state for the selected location and period.
Title	
Status	<Deleted>
Rationale	This indicates if it belongs to some high load counts or not. The user should be able to easily identify in a flight list (a.o. hotspot and regulation flight list) / slot list which flights belong to a count overload (i.e. the reason for the hotspot). Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

3886
3887 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0096
Requirement	The different type of flight lists shall display when a flight departure time is, or has been, manually forced.
Title	
Status	<Deleted>
Rationale	This is to help managing delay measures where slots can be forced manually. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0097
Requirement	The system shall display high level measure information for each flight using: - A most penalizing measure column. - A measure kind column - A M-CDM state column
Title	
Status	<Deleted>
Rationale	To help managing flights affected by one or more ATFCM measures, the different type of flight lists. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0098
Requirement	The different types of flight lists shall display, for the queried location and period: - Either the worst entry load state in which the flight is counted (i.e. based on hourly capacity): L for Low, H for High or O for Overloaded (normal and undefined are not displayed) - Or the worst occupancy load state in which the flight is counted (i.e. based on OTMV): P for Peak or S for Sustained (normal is not displayed)
Title	
Status	<Deleted>

Rationale	This is to help monitoring traffic load and contribute to flight complexity analysis Since OTMV can only be defined for traffic volume, occupancy load state can only be displayed for traffic volume, regulation and hotspot flight lists. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0099
Requirement	When Hotspot management is enabled, all flight lists shall display the number of hotspots the flight enters.
Title	
Status	<Deleted>
Rationale	This is to help monitoring occupancy traffic load and contribute to flight complexity analysis. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0100
Requirement	When entering a hotspot, the system shall use the flight's hotspot count value as a quick link to the hotspot flight list(s) that contains the flight
Title	
Status	<Deleted>
Rationale	This is a flight list related user interaction requirement. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0101
Requirement	The different flight display shall indicate the presence of a proposal flight while displaying the normal flight plan information.
Title	

Status	<Deleted>
Rationale	To inform the user that a flight might be affected by a proposed measure while monitoring normal traffic Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0102
Requirement	The system shall display the time when the flight EXIT from the queried en-route location, when listing flights crossing an airspace, a traffic volume, a hotspot or a regulation.
Title	
Status	<Deleted>
Rationale	This is a flight list related user interaction requirement. This EXIT time is not displayed in the ARCID, aerodrome, aerodrome set, aircraft operator flight lists as these are not selecting flights on a sector. The presence of this EXIT information in above relevant flight lists can be disabled via user preference but is not dependent on any user profile authorisation. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0103
Requirement	FMP tactical planners shall have a display giving an occupancy flight list on periods longer than the maximum occupancy count duration of 20 minutes.
Title	
Status	<Deleted>
Rationale	This is to evaluate traffic load state and possible re-distribution of the traffic on a period wider than a defined hotspot. Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0104
Requirement	The different flight lists where occupancy count type is relevant (except the hotspot flight list) shall provide a user adjustable time buffer parameter which will be expressed in a number of occupancy count steps of one minute to be added upfront and at the end of the basic count duration period.
Title	
Status	<Deleted>
Rationale	This is to analyse the list of flights based on occupancy count type for a period longer than a predefined occupancy count durations (i.e. duration limited from 1 to 20 minutes) Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0105
Requirement	On initial display, when the flight list request is initiated from scratch (i.e. when not initiated from a contextual request of another function like counts), the system shall highlight automatically the flights in the basic occupancy period identified by AT and Duration in the list.
Title	
Status	<Deleted>
Rationale	This is a flight related requirement from a flight list use case Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0106
Requirement	The occupancy flight list shall clearly display the period used for retrieving the corresponding occupancy (i.e. “The occupancy period used for this query is [hh:mm, hh:mm [, based on the hotspot period, count duration and +/- Steps”).
Title	
Status	<Deleted>
Rationale	This is because the query period is not directly inputted by the user but derived from some calculations. Superceded
Category	<HMI>

Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0107
Requirement	The occupancy flight list shall allow the highlighting a subset of flights identified in a sub-period within the queried period.
Title	
Status	<Deleted>
Rationale	This is to facilitate analysis of occupancy at different time granularity or identify flights in one or more consecutive occupancy count steps. The user can activate or de-activate this mechanism, adjust the start time and the end time of the highlighted sub-period, move the sub-period in time per minute within the queried period and see the flights highlighted accordingly. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0108
Requirement	Selecting one or more occupancy count steps in a counts window (i.e. bars in count chart or columns in count table) displaying the same traffic count selection (i.e. same query criteria) shall automatically adjust this highlighting mechanism to highlight flights corresponding to the selected counts.
Title	
Status	<Deleted>
Rationale	This is a flight related requirement for user interaction. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0109
Requirement	A warning shall inform the user when the query period of the flight list does not cover completely the period covered by the selected counts: “Missing flights - Extend query period”.

Title	
Status	<Deleted>
Rationale	Warning feedback is deemed necessary Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0110
Requirement	The system shall derive the query period of the hotspot flight list automatically from: - The applicability period of the hotspot - Count duration associated to the hotspot
Title	
Status	<Deleted>
Rationale	The hotspot flight list is a specialized occupancy flight list on a traffic volume. If the applicability period of the hotspot is [A, B [and its associated duration is D, the query period for this particular occupancy flight list is [A, B-1+D [. E.g. for a hotspot with applicability period [06:15, 06:48 [and duration 10, the period of the corresponding occupancy flight list is [06:15, 06:57 [. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0111
Requirement	When displaying the list of flights, the hotspot flight list shall display the period used for the corresponding occupancy.
Title	
Status	<Deleted>
Rationale	This gives “The occupancy period used for this query is [hh:mm, hh:mm [, based on the hotspot period and count duration”. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0112
Requirement	The hotspot flight list shall allow the highlighting a subset of flights caught in the hotspot based on a selected time and for the duration associated to the hotspot.
Title	
Status	<Deleted>
Rationale	The user can activate this mechanism, allowing navigation in time per minute within the hotspot period and see the flights highlighted accordingly. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0113
Requirement	The system shall display a STAM set flight list showing a standard list of flights (i.e. displayed columns are similar to the Aircraft Operator tab) affected by one or more measures intended at resolving a common hotspot.
Title	
Status	<Deleted>
Rationale	The STAM set flight list shows a standard list of flights (i.e. displayed columns are similar to the Aircraft Operator tab its flight list) affected by one or more measures intended at resolving a common hotspot. Based on the hotspot object of the hotspot flight list, the system may use the hotspot list query/reply to obtain the list of measures linked to the selected hotspot. The STAM set flight list is then the concatenation of the different list of flights affected by each measure linked to the hotspot. Each flight may only appear once in the list (i.e. this is a combination of multiple flight lists as they appear in the measure elaboration space). Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0114

Requirement	The system shall display the flight details in the following main groups of information: - General flight information - Timing information - Status information - Airport information - Route information - ATFCM measure information
Title	
Status	<Deleted>
Rationale	For flight emphasis Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0115
Requirement	The ATFCM measure main group of information on the flight details view shall display: - The proposed rerouting reference with the time limit to reply to the rerouting proposal, if appropriate - Flight rerouting reason and state, if appropriate, with current aircraft operator what if reroute possibilities (AOWIR) - The most penalising regulation affecting the flight, its cause, the resulting delay on the flight with the slot tolerance violation in minutes For this most penalising regulation, if specific authorisation is granted: -- The fix location identification, the target time and the flight level over the location -- The actual time at target followed by the compliance against the target time over - The last ATFCM message sent or received possibly with the originator (received only) - The time limit to issue a flight confirmation after a flight suspension, if appropriate - Flight suspension warning with the associated reason, if applicable - The list of ATFCM measures affecting the flight plan.
Title	
Status	<Deleted>
Rationale	This is a flight related user interaction giving full details Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0116
Requirement	The list of ATFCM measures affecting the flight displayed in the ATFCM measure main group of information on the flight details view shall include the following detail per measure: - The measure identifier, kind (delay, rerouting + result) and sub-type (ground delay, minimum departure interval …) - The flight M-CDM state, if applicable - The indication if flight confirmation is still required, if applicable - The reference location on which the measure is defined - The period of the hotspot associated to the measure, if applicable
Title	
Status	<Deleted>
Rationale	The list of ATFCM measures should include standard information, but also include the defined hotspots where the flight is caught but no measure is associated yet. In such case, the measure line only displays the hotspot period and the associated reference location on which the hotspot is defined. Note: flight details function being mainly targeted at airspace users, the reference location is preferred to the Traffic Volume identifier which is better known to ATFCM actors. The measure identifier implements a link to the measure editor for that measure The flight M-CDM state implements a link to the corresponding flight M-CDM details in the M-CDM tool The period of the hotspot associated to the measure implements a link to the hotspot editor for that hotspot Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0117
Requirement	When one or more flights are selected on invoking the creation of a new STAM measure: - The system proposes by default the creation of an FMP Cherry Picked measure. - The system initiates immediately the linking of the selected flights once the measure is successfully created.
Title	
Status	<Deleted>
Rationale	This is measure related user interaction Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0118
Requirement	The system may use the rerouting list query/reply with the target date selected for the flight list to populate a rerouting drop down list or support input auto completion functionality. The rerouting identifier to be linked must exist.
Title	
Status	<Deleted>
Rationale	This allows flight selection and facilitates the choice of an existing Rerouting measure to which a flight is to be linked, but when no flights are selected on invoking the creation of a new ATFCM measure, the system proposes by default the creation of an FMP measure (i.e. non cherry picked). Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0119
Requirement	The system shall propose, by default, the creation of “proposal” flights when preparing the addition of flights to a new or existing FMP Cherry Picked measure of Delay kind.
Title	
Status	<Deleted>
Rationale	This is a measure related business rule Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0120
Requirement	The rerouting measure list shall include following specific set of information per ATFCM rerouting measure: - The identification of the new route, if available - The description of the new route, if available
Title	
Status	<Deleted>
Rationale	This is information in addition to the common information described earlier. Superceded
Category	<HMI>
Validation Method	

Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0121
Requirement	The system shall allow only one given instance of the measure elaboration space to be available to one measure.
Title	
Status	<Deleted>
Rationale	It is not possible to edit a measure in two separate windows at the same time. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0122
Requirement	When an instance of the measure elaboration space is already opened for a measure, any subsequent request to display the measure elaboration space for that same measure shall give the focus to this existing instance and bring it back on top to be visible.
Title	
Status	<Deleted>
Rationale	This is a measure related user interaction requirement Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0123
Requirement	The system shall warn the user and request confirmation whenever he initiates the creation or the modification of a measure with a start time which is in the past.
Title	
Status	<Deleted>
Rationale	Data validation Superceded

Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0124
Requirement	The ATFCM measure definition shall include the following information specific to rerouting measure kind (i.e. an ETFMS rerouting): - Location type - mandatory - Location identifier (i.e. linked to location type; the location on which the measure is applied) - optional - Flow Limitation identifier used in combination with the location type and identifier on which the measure is applied - optional - Location description (i.e. default is the ENVironment source but can be overwritten) - optional/VarDescription string - DCT Detour (i.e. linked to Location selection) - optional/boolean - Rerouting kind - mandatory/enumerated -- Indication and Opportunities (RRP) -- Mandatory after Proposals (RRN) -- Execute without Proposals on Demand or Regulated Demand - Generate proposal indicator - mandatory/boolean - Replace FTFM for planned flight (i.e. linked to Execute kind) - optional/boolean - Compute TOT validity period - mandatory/enumerated - Reroute source type (Horizontal, Vertical, Manual) - mandatory/enumerated - City Pair Stats parameters - Optional - Path Generator parameters - Optional - Reroute flights already compliant indicator - mandatory /boolean - Manual reroute description (Field 15 portion) - Optional/VarDescription string - Freeze terminal procedures and connections outside IFPS Zone (i.e. NAT part/Oceanic part) - optional/boolean - Reference RFLs type (original, highest, longest) - optional/enumerated - List of constraint rules (0-n) composed of: -- Constraint kind (i.e. Via, Avoid, Absolute FL Speed…) - mandatory/enumerated -- Location associated to the selected constraint kind - mandatory/enumerated -- Parameters required with the selected constraint kind and location type - mandatory - List of route cost criteria (0-n) -- Route cost criteria kind (i.e. Fixed cost, Delay …) - mandatory/enumerated -- Parameters required with the selected route cost criteria kind - List of errors that can be ignored (0-n) -- Error kind (i.e. ATS_AVAILABILITY_ERROR, CDR1_AVAILABILITY_ERROR …) - mandatory/enumerated - Re-Ignore IFPS errors - mandatory/boolean
Title	
Status	<Deleted>

Rationale	This is information in addition to the definition elements common to any measure kind described earlier. Note: rerouting may be defined on other references than a traffic volume like restrictions, delayed flights … but these are not defined here for scope limitation Note: Location type may be "None". RRP == Rerouting elaborated to generate route improvement for the flight. Generation of proposal flights with reroute proposal messages (RRP) is optional. The Aircraft Operator can use the AOWIR to further investigate opportunities. RRN == Rerouting elaborated to solve traffic peaks or potential overloads. Such rerouting typically generates flight proposals and is negotiated between the different actors using M-CDM process. When agreed, rerouting notification messages are generated (RRN). Execute without Proposals on Demand or Regulated Demand is a rerouting directly imposed on traffic demand or regulated demand (i.e. not working on proposal flights).) Note: Freeze terminal procedures and connections outside IFPS Zone (i.e. NAT part/Oceanic part) - optional/boolean is named “Freeze TPs/Outside IFPZ” in subsequent requirements. Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0125
Requirement	When initiating the creation of a new STAM rerouting measure, the system shall display the following definition fields with the following default values. - Measure sub-type is empty and offers to choose between sub-types: -- Ground level capping (GLCAP) -- Ground horizontal rerouting (GHRER) -- Miles in trail (TRAIL) -- Terminal Procedure Change (TPCHG) - Location Type forced to traffic volume and not further modifiable - Location Identifier input field is left empty unless the measure creation was invoked from a Traffic Volume Flight List in which case this traffic volume identifier is proposed by default. - Flow Limitation input field is left empty unless the measure creation was invoked from a Traffic Volume Flight List limited by a flow in the query criteria in which case this flow identifier is proposed by default. - Location Description is forced to blank (i.e. empty). - Rerouting kind is forced to Indication and Opportunities (RRP) - Horizontal reroute source type comes pre-selected - Freeze TPs/Outside IFPZ indicator is forced to Yes - List of constraint rules is forced to none (i.e. empty list) - Manual reroute description is left empty
Title	

Status	<Deleted>
Rationale	All these fields defaulted but are further modifiable unless specifically stated. See also specific initialisation requirement when measure creation is initiated from a Hotspot Flight List If the value of the Location Description text field is left blank by the user, the system takes automatically the ENVironment source description for the selected Location Type and Identifier of existing ENVironment entities (i.e. traffic volume, aerodrome, aerodrome set …). Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0126
Requirement	When the creation of a new ATFCM rerouting measure is initiated from a Hotspot Flight List, the following definition fields shall have the following specific initialisation rules: - The applicability period of the measure is initialised to the hotspot date and time period - Location Identifier is initialised to the traffic volume on which the hotspot is defined - Rerouting kind is forced to Mandatory after Proposals (RRN)
Title	
Status	<Deleted>
Rationale	All these fields have defaults but are further modifiable unless specifically stated. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0127
Requirement	The system shall provide default values for the generate proposals indicator and update rights depending on the associated rerouting kind: - Unchecked and enabled for indication and opportunities (RRP) - Checked and disabled for mandatory after proposals (RRN) - Unchecked and disabled for execute with proposals on demand and regulated demand
Title	
Status	<Deleted>
Rationale	Generate proposals indicator is always displayed for rerouting measure kind Superceded
Category	<HMI>

Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0128
Requirement	The ATFCM measure sub-type shall have specific initialisation rules for rerouting measure: - When rerouting source is set to vertical, measure sub-type is forced to ground level capping (GLCAP) and cannot be changed by the user - When rerouting source is set to horizontal, measure sub-type is forced to ground horizontal rerouting (GHRER) and cannot be changed by the user - When rerouting source is set to manual, the measure sub-type offers to choose between the proposed rerouting measure sub-types.
Title	
Status	<Deleted>
Rationale	This is a measured requirement for user interaction in an edit Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0129
Requirement	When the reroute source type is set by the user while no constraint has been defined yet, the display shall switch automatically to the constraint page.
Title	
Status	<Deleted>
Rationale	This is ready to define the first constraint. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0130

Requirement	Following definition elements of a rerouting measure shall only be adjustable when creating a new measure: - Measure kind - Measure type and sub-type - Measure period - Location type and identifier - Flow Limitation - Rerouting kind with possible related generate proposal indicator - Reroute source type
Title	
Status	<Deleted>
Rationale	This is a measured related requirement for user interaction in an edit Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0131
Requirement	The following measure definition elements shall always be modifiable for rerouting measures: - Hotspot identification (i.e. referenced hotspot identification may change with occupancy) - Location description - Measure description - M-CDM required which may only be set from “No” to “Yes” (i.e. Interrupting M-CDM is done by adjusting the M-CDM state).
Title	
Status	<Deleted>
Rationale	Measure modification should be available, but requires specific update authorisation. Note: editing a measure which is terminated or cancelled is possible as this might generate a proposal measure update Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0132
Requirement	The system shall constrain the set of adjustable rerouting measures depending on the following rerouting source type definition: - Horizontal: Freeze TPs/Outside IFPZ indicator and list of constraint rules - Vertical: List of constraint rules - Manual: Manual reroute description (Field 15 portion)

Title	
Status	<Deleted>
Rationale	Measure modification should be provided but requires specific update authorisation. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0133
Requirement	When creating a new rerouting measure, the system shall initialise the constraint elements as follow (when relevant for the selected reroute source type): - No constraint rules are initially defined (i.e. empty list) - Freeze TPs/Outside IFPZ indicator is forced to Yes - Manual reroute description is left empty.
Title	
Status	<Deleted>
Rationale	Measure modification should be provided but requires specific update authorisation. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0134
Requirement	The measure editor shall allow the following constraint kinds for a vertical or horizontal rerouting measure: - Via - Avoid - Absolute FL Speed - Delta FL
Title	
Status	<Deleted>
Rationale	Measure modification should be provided but requires specific update authorisation. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0135
Requirement	The measure editor shall allow the “via” and “avoid” constraint kinds for following reference location identification: - Airspace type with relevant identifier - Point type with relevant identifier
Title	
Status	<Deleted>
Rationale	This is a measured related requirement for user interaction in an edit Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0136
Requirement	The measure editor shall allow the following parameters with “Absolute FL Speed” and “Delta FL” constraint kinds: - Point identifier - Flight level
Title	
Status	<Deleted>
Rationale	“Absolute FL Speed” constraint kind also allows defining optionally a speed value with the corresponding unit of speed (Knots, Kmph, Mach). Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0137
Requirement	The measure editor shall able to display “Other” as a valid constraint kind without any additional associated parameter definition.
Title	
Status	<Deleted>
Rationale	This is to limit complexity of the initial rerouting implementation model.

Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0138
Requirement	The M-CDM definition of a measure shall include the following information: - M-CDM state - mandatory/enumerated - Time to coordinate by (TTC) - Time to start implementation by (TTS) - Time to implement by (TTI) - List of role per ATFCM user category defined as: -- M-CDM User Category - mandatory/enumerated -- M-CDM Level - mandatory/enumerated -- M-CDM Role - mandatory/enumerated - List of identified M-CDM actor defined as: -- Air Navigation Unit (i.e. ANU identifier) - mandatory -- M-CDM Role - mandatory/enumerated -- M-CDM Approval State - mandatory/enumerated
Title	
Status	<Deleted>
Rationale	This is a measures related business rule Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0139
Requirement	The M-CDM definition of a flight shall include the following information: - M-CDM state - mandatory/enumerated - List of identified M-CDM actor defined as: -- Air Navigation Unit (i.e. ANU identifier) - mandatory -- M-CDM Role - mandatory/enumerated -- M-CDM Approval State - mandatory/enumerated
Title	
Status	<Deleted>
Rationale	This is a measures related business rule Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0140
Requirement	When creating a measure, if M-CDM is required, the system shall default the M-CDM state to Draft.
Title	
Status	<Deleted>
Rationale	There are defaults, but once the measure is created, the user can change its M-CDM state via the measure elaboration space (i.e. the measure editor) and via the M-CDM tool. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0143
Requirement	When the measure is created with M-CDM required ON, each cell of the M-CDM rules definition table shall take one of the different possible M-CDM roles from a drop down list.
Title	
Status	<Deleted>
Rationale	If the user wants to have a sequential collaboration, then he would change the roles of the categories during the M-CDM state “proposed”. For example: - First the Aircraft Operators need to approve on a flight by flight basis -> The Initiator would force the cell Flight / Aircraft Operator to the role For Approval - Once Aircraft Operators have approved, then Adjacent FMPs need to approve on a measure by measure basis -> The Initiator would force the cell Measure / Adjacent FMP to the role For Approval Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0144

Requirement	When the measure is created with M-CDM required ON, the system shall allow the user to modify the date and time controls for: - Time to coordinate by when M-CDM state is Draft or Proposed - Time to start implementation by when M-CDM state is Draft, Proposed or Coordinated - Time to implement by when M-CDM state is Draft, Proposed, Coordinated or For Implementation
Title	
Status	<Deleted>
Rationale	This is a measures related requirement for a user interaction in an edit Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0145
Requirement	The measure elaboration space shall provide a link to display the list of flights crossing the reference location or matching criteria on which the measure is defined, possibly including flights currently affected by the measure.
Title	
Status	<Deleted>
Rationale	This list allows the FMP to further analyse possible alternatives or update current measure impact. Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0146
Requirement	When the removal request is initiated from the regulation flight list or from the flight list in the measure elaboration space while displaying an FMP cherry picked measure, the system shall propose the queried measure identifier by default for the removal request
Title	
Status	<Deleted>
Rationale	This allows it to be overwritten by another selection or a manual input). Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

4082
4083 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

4084
4085 [REQ]

Identifier	REQ-13.02.03-TS-3501.0147
Requirement	The system shall display the M-CDM Actor & Roles in the details screen of the M-CDM View in the roles tab.
Title	
Status	<Deleted>
Rationale	This allows checking and editing actions for Hotspot and Measure topics only. This information can then made available in the M-CDM tool grouped under the name “M-CDM Actors & Roles”. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

4086
4087 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

4088
4089 [REQ]

Identifier	REQ-13.02.03-TS-3501.0148
Requirement	For every role and for every topic level, the system shall allow the Initiator to: - Remove the Actor/Role - Modify the Actor/Role - Add a new Actor/Role
Title	
Status	<Deleted>
Rationale	From a business process point of view, only the Initiator will be able to edit the M-CDM Actors & Roles. For remove and modify, the system will push automatically the M-CDM state to “Abandoned” for the topics of actors eliminated. For modify and add; when actors are added they display the topic(s) in the coordination tool in their current M-CDM State. Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

4090
4091 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

4092
4093 [REQ]

Identifier	REQ-13.02.03-TS-3501.0149
Requirement	Every saved change in the actors and their roles shall refresh the M-CDM List in the M-CDM tool and generate a system message for the topic.

Title	
Status	<Deleted>
Rationale	This is to disseminate information; However, the actors will not see any topic information if the changes are made when the topic is in “Draft” state. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0150
Requirement	At the Hotspot level the system shall only allow the initiator to edit the For Information role
Title	
Status	<Deleted>
Rationale	At the hotspot topic level, the information is made available to the actors. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3501.0151
Requirement	At the Measure level the system shall allow the initiator to edit all the actors & roles for the Measure and the flights contained in it - The information at measure and flight level is here aggregated because the FMP works within the M-CDM tool at the measure level, he needs to be aware of the overall situation and reduce to minimum the time spent to make a change within the measure. - At the flight level the Initiator can edit all the actors & roles for the specific flight - The other actors shall see the same display as the Initiator for the topics where they’ve a role, with the exception of the buttons/mechanisms which allow the Initiator to edit Actors and Roles.
Title	
Status	<Deleted>
Rationale	At the Measure topic level, the information is made available to the actors. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

4103 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

4104

4105 [REQ]

Identifier	REQ-13.02.03-TS-3501.0152
Requirement	At the flight level the system shall allow the initiator to edit all the actors & roles for the specific flight
Title	
Status	<Deleted>
Rationale	At the flight level the information is made available to the actors. The other actors will see the same display as the Initiator for the topics where they've a role, with the exception of the buttons/mechanisms which allow the Initiator to edit Actors and Roles. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

4106

4107 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

4108

4109 [REQ]

Identifier	REQ-13.02.03-TS-3501.0153
Requirement	The system shall trigger the initiation of the Measure Collaborative Decision Making (M-CDM) when changing the M-CDM state from Draft to Proposed.
Title	
Status	<Deleted>
Rationale	M-CDM state changes can be actioned: - Either from = M-CDM Rules tab in the measure editor - Or from = Function: Update the M-CDM State in the M-CDM tool Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

4110

4111 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

4112

4113 [REQ]

Identifier	REQ-13.02.03-TS-3502.0001
Requirement	The M-CDM Tool dashboard shall contain five parts: - A dDCB M-CDM list - A dDCB M-CDM view (Details and Communication History screen) - A Tasks reminder screen - A Notification screen - A Timeline
Title	

Status	<Deleted>
Rationale	The full M-CDM context relating to one measure is often referred to as “a coordination”. This coordination is separated into a summary which allows the user to identify the coordination and an extended display that gives the full M-CDM context. The M-CDM List is a list of summaries. The M-CDM View shows full M-CDM details (when viewed with the summary) corresponding to the currently selected summary. The Timeline shows summaries in a manner intended to help the user manage his/her work. The Tasks reminder shows the next actions for the user to interact with the tool sorted by due time. The Notification screen shows the last messages received by the user for all his concerned topics, filtered by his preferences. Some user preferences can be set within the coordination tool. Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0002
Requirement	The M-CDM tool shall contain on the top bar two tabs: - The “My topics” tab - The “Query topics” tab
Title	
Status	<Deleted>
Rationale	The first tab allows information relevant to the user. The second tab allows the user to perform queries (query details in the following paragraphs) also for topics where he’s not involved. Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0003

Requirement	The following data shall identify the elements of the coordination that should be present in the summary and those which can be shown in the expanded M-CDM view (key fields identify the coordination). Data item = Data element = Key = Summary / Expanded / remarks Hotspot = Identifier = Yes = Summary Measure = STAM Kind = Yes = Summary Measure = ARCID = No = Expanded. Measure = Aerodrome = No = Expanded Measure = ATFCM Measure = No = Expanded but may also be in Summary if brief. M-CDM = Initiator = Yes = Expanded, In summary distinction between Incoming and Outgoing M-CDM = Implementer = No = Expanded M-CDM = State = No = Summary. If State is Proposed then an overview of the current approvals could be given. If State is For Implementation than an overview of the current state of implemented flights could be given. M-CDM = Next deadline = No = Summary M-CDM = TTI = No = Expanded M-CDM = Content Change Indicator = No = Summary
Title	
Status	<Deleted>
Rationale	Data requirement Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0006
Requirement	For roles For Approval and For Implementation only; the system shall allow the following “Approval States” that can be changed by expressing a vote: - Unknown - default state, it means that no response has been given by the actor - Approve - actor approves the measure - Reject - actor disapproves the measure - Acknowledged - actor acknowledges the request and starts thinking about the response (Standby).
Title	
Status	<Deleted>

Rationale	When the actor cast a refuse he has to provide a reason for the rejection. The reason for rejection is managed as a human message sent by the user for the M-CDM before the rejection is actually applied. The actor can change his vote as long as the topic is still in the Proposed or Interrupted state. The Initiator can reset the vote(s) given from the actor(s) at the Measure/Flight level as long as the topic is in the Proposed State or Interrupted State. To reset single votes the Initiator has to move the actor from Acknowledged, Accepted, Rejected to Missing in the voting summary displayed in the M-CDM View - Details Tab of a Topic. The result of a vote is displayed in the M-CDM tool as described in the previous paragraphs. Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0008
Requirement	The system shall update the State based on the Vote and according to State Transitions available.
Title	
Status	<Deleted>
Rationale	The Initiator can update the M-CDM state based on the votes' results and the events occurred during the process. Measures topics cannot be updated to ABANDONED within the M-CDM Tool. To cancel a measure the user accesses the Measure Editor. Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0009
Requirement	The system shall allow the M-CDM State to be edited (e.g. using a contextual menu): - in the Timeline - in the M-CDM View - in the M-CDM List
Title	
Status	<Deleted>

Rationale	The Initiator can update the M-CDM state in convenient locations Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0010
Requirement	When the state changes the system shall notify the actors with an automatic system message for the related topic.
Title	
Status	<Deleted>
Rationale	This is necessary system feedback Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0011
Requirement	The current time and date shall always be visible In the M-CDM tool .
Title	
Status	<Deleted>
Rationale	This is a general user interaction requirement SUPERCEDED Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0012
Requirement	In the M-CDM tool the system shall enable the multiple hyperlinks feature.
Title	
Status	<Deleted>
Rationale	Selecting a HMI view representing a measure will cause the measure to become 'globally selected' in all the components of the dashboard Superceded
Category	<HMI>

Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0013
Requirement	The system shall only allow one measure to be selected at any one time.
Title	
Status	<Deleted>
Rationale	This is a general user interaction requirement SUPERCEDED Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0014
Requirement	Once a measure is globally selected, the system shall show all HMI artefacts representing the measure in their 'selected' look and feel.
Title	
Status	<Deleted>
Rationale	This is a general user interaction requirement SUPERCEDED Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0015
Requirement	The system shall detect important data changes that have occurred in between HMI refresh cycles and bring them specifically to the user's attention.
Title	
Status	<Deleted>

Rationale	The components of the dashboard (TimeLine, M-CDM List, M-CDM View, Tasks Reminder, Notification Screen) are refreshed on a timed basis, as new data becomes available from other systems. This may introduce important updates that need highlighted to the user. The following changes, as a minimum are deemed important: - A new topic where I'm an actor is pushed to proposed state - A topic where I'm an actor has changed state in some significant way - A new actor message has been received for a topic where I'm an actor. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0016
Requirement	The HMI shall graphically indicate when a topic is considered new to the end-user.
Title	
Status	<Deleted>
Rationale	The measure is being displayed on this user's screen for the first time. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0017
Requirement	The HMI shall graphically indicate when a measure has human-generated messages considered new to the end-user.
Title	
Status	<Deleted>
Rationale	The message has been received but not yet read by the end-user Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

4169 [REQ]

Identifier	REQ-13.02.03-TS-3502.0018
Requirement	The HMI shall optionally be configured to graphically indicate when a measure has system-generated messages considered new to the end-user
Title	
Status	<Deleted>
Rationale	Here, a system generated message has been received but not yet read by the end-use. Some of these messages are more useful during the post-ops analysis, while others have the aim to enhance the real time - collaboration phase. Such system generated messages may be received when: - there is a new incoming Measure/Flight (i.e. put in M-CDM State “Proposed” by another actor) - the measure/flight changes M-CDM state - a user gives his/her vote - all the actors in a measure have given their vote - other changes to the measure/flight contents, particularly: -- one or more deadlines have been edited -- one or more roles have been edited -- one or more actors have been edited -- one or more flights have been edited -- any other parameter in the measure, - deadlines approaching, for warning and alert Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

4170

4171 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

4172

4173 [REQ]

Identifier	REQ-13.02.03-TS-3502.0019
Requirement	The end-user shall acknowledge the data change by selecting the topic.
Title	
Status	<Deleted>
Rationale	Acknowledging the ‘data change’ indicators for the topic allow the displaying to cease. Note that the data change indicator is a sort of flag. If an unacknowledged data change indicator exists when the system would like to trigger a data change indicator, it does not show two. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

4174

4175 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

4176

4177 [REQ]

Identifier	REQ-13.02.03-TS-3502.0020
Requirement	Messages arriving for a measure that is currently globally selected shall still be considered new.
Title	
Status	<Deleted>
Rationale	This requirement takes in consideration that a user may leave a measure selected and leave his/her desk. Coming back, the user would still need an indication that something has changed. Therefore, it's preferable to apply a strict policy on explicitly acknowledging the data change. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

4178

4179 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

4180

4181 [REQ]

Identifier	REQ-13.02.03-TS-3502.0021
Requirement	In the various windows of the dashboard a given measure may be shown in various degrees of alert: - No alert - Warning - Alert
Title	
Status	<Deleted>
Rationale	The graphical representation of an alert may vary, but the logical significance remains the same: - for the Timeline the representation is defined in Reminders section of the Timeline paragraph. - for all the other components of the dashboard where an alert is displayed it's followed the same representation of the timeline The alert is with respect to: - A time: The next_deadline_time approaching current-time - An activity (task) described in the paragraph Task Reminder Screen. If an alert is possible, then the next_deadline_time (NDT) is compared to the current time (CT), and some predefined threshold values: - CT < NDT - Warning Threshold : No Alert - NDT - Warning Threshold <= CT < NDT - Alert Threshold : Warning - NDT - Alert Threshold <= CT : Alert Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

4182

4183 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

4184

4185 [REQ]

Identifier	REQ-13.02.03-TS-3502.0023
Requirement	The system shall apply the following default structure to the M-CDM list: - Hotspot A (if present) -- Measure X contained in the Hotspot A (preferably represented in a way distinguishable from the Hotspot) -- all the flights contained in the Measure X (preferably represented in a way distinguishable from the Hotspot and the Measure) -- Measure Y contained in the Hotspot A (if present) -- all the flights contained in Measure Y -- Measure Z… - Hotspot B (if present -- same logic is followed
Title	
Status	<Deleted>
Rationale	The “tree” structure should be graphically emphasized in the M-CDM List. If the Hotspot is not present, the first level of the tree is the Measure. This allows FMP - TOWER - AO and NMOC to have a different default view of the M-CDM List however every users can rearrange this list deciding what to display by filtering (e.g. to display only the content at Measure and Flight Level) Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0024
Requirement	Selecting a row of the list shall globally select the topic throughout the application (e.g. displaying the details in the Details Screen and the messages for that topic in the Communication History Window).
Title	
Status	<Deleted>
Rationale	The M-CDM list shows the summary updated with all information as it becomes available. All these item are known as M-CDM info Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0025

Requirement	At the measure level the system shall allow the user to see detailed information with a tooltip for the most problematic cases.
Title	
Status	<Deleted>
Rationale	When the Measure is in state PROPOSED : - The list of Actor/Roles who didn't approve at Measure Level e.g. "ID1, ID2, didn't approve the Measure GHRER" - The list of Actor/Roles who didn't approve at Flight Level "e.g. ID1 didn't approve the flight RYR670W" - The list of Flights who are in State Interrupted "e.g. Flight XXX is Interrupted". When the measure is in state FOR IMPLEMENTATION: - The list of Flights who are in State Interrupted. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0026
Requirement	Within the M-CDM list, the system shall enable interaction with the field and vote as specified.
Title	
Status	<Deleted>
Rationale	This is a general user interaction requirement SUPERCEDED Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0027
Requirement	Within the M-CDM list, the system shall allow the Initiator to reset the vote(s) given from the actor(s) at the Measure/Flight level.
Title	
Status	<Deleted>
Rationale	This is a general user interaction requirement SUPERCEDED Superceded
Category	<HMI>
Validation Method	

Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0028
Requirement	In the M-CDM list, the system shall display the M-CDM info by default when the user is concerned about the topic.
Title	
Status	<Deleted>
Rationale	Here being concerned means that the user has assigned for the specific topic one of the roles defined in the Measure Editor and in the roles tab. So, if the user is concerned by the topic he can display also the Details/Roles and Impact tab for that topic, further described in the M-CDM View paragraph. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0029
Requirement	The next-deadline-time field should be colour coded following the alerting rules.
Title	
Status	<Deleted>
Rationale	This allows the different alerting rules to be easily seen, e.g. - NO_ALERT - no background/font colour - WARNING - orange background/font colour - ALERT - red background/font colour Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0030
Requirement	Authorized users should have the possibility to have a look to all the M-CDM if needed, by means of a query system.
Title	
Status	<Deleted>

Rationale	A query needs to be available in the M-CDM List in a second tab called “Query Topics” The query always show the 3 topics level (Hotspot-Measure-Flight) if there’s at least one topic satisfying the query. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

4214
4215 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

4216
4217 [REQ]

Identifier	REQ-13.02.03-TS-3502.0031
Requirement	The M-CDM tool shall allow the user to apply a filter On type of Measure
Title	
Status	<Deleted>
Rationale	This will allow data focus, so the following filters are proposed: On type of Measure (e.g. through drop down list) - Display ALL - Display only INCOMING Measures - Display only OUTGOING Measures - Display only OUTGOING TV - Geographical filter outgoing on queried M-CDM elements based on their TV Id Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

4218
4219 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

4220
4221 [REQ]

Identifier	REQ-13.02.03-TS-3502.0032
Requirement	The M-CDM tool shall allow the user to apply a filter On M-CDM State
Title	
Status	<Deleted>
Rationale	This will allow data focus, so the following filters are proposed: On M-CDM State (e.g. through checkbox) - Display ALL - Display only ACTIVE relevant topics (not ABANDONED or FINISHED) - Display only selected M-CDM States (checked from a list) Superceded
Category	<HMI>
Validation Method	

Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0033
Requirement	The M-CDM tool shall allow the user to apply a filter On columns
Title	
Status	<Deleted>
Rationale	This will allow data focus, so the following filters are proposed: On columns, the user can select which fields can be hidden. This filter will not be applied to the following fields (which are also considered as the default view): - Topic tabID - M-CDM STATE - Next Deadline Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0034
Requirement	The M-CDM tool shall allow the user to apply a filter On messages
Title	
Status	<Deleted>
Rationale	This will allow data focus, so the following filters are proposed: On messages (in the customisation-user preferences settings) - Display ALL - Display only human messages - Display only type of messages selected by the user (human and system with several subcategories of system messages) Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0035

Requirement	The M-CDM tool shall allow the user to apply a filter On Tasks
Title	
Status	<Deleted>
Rationale	This will allow data focus, so the following filters are proposed: On Tasks (in the customisation-preference settings) - Sort tasks by type (incoming / Outgoing) - Sort tasks chronologically: most urgent on top - Sort tasks chronologically: most urgent at bottom Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0036
Requirement	The M-CDM tool shall allow the user to apply a filter On notification
Title	
Status	<Deleted>
Rationale	This will allow data focus, so the following filters are proposed: On notification (in the customisation-user preferences settings) - Sort notification by type (Incoming / Outgoing) - Sort notifications chronologically: most recent on top - Sort notifications chronologically: most recent at bottom The topics in the list can be collapsed/expanded following the tree structure (Hotspot-Measure-Flight). List will be independently sorted by selecting any column. By default, the lists are sorted by decreasing value of Next-Deadline-Time in the measures. This ensures that, by default, the table ordering is identical to that of the timeline. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0037
Requirement	The system shall activate the menu with a pre-defined user action (eg: the mouse right-click).
Title	
Status	<Deleted>

Rationale	When the cursor is on the M-CDM List/Timeline, the right-click also selects the row/widget in the List/Timeline, when the cursor is in the M-CDM View (topic already selected), the right-click opens the contextual menu for that topic.
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0038
Requirement	Popup menus should always be visible when required.
Title	
Status	<Deleted>
Rationale	This ensures its availability: - The popup menu will be positioned by default with its left top hand corner underneath the current mouse position - The default popup position will be modified to ensure the menu fits onto the browser window - The popup menu will be modal: processing all browser mouse events until the popup menu is closed. - Clicking in the browser window, outside of the popup menu, will cause the popup menu to be closed.
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0039
Requirement	The M-CDM menu shall consist of the following parts: - Topic Identification - for a Hotspot it shows Hotspot ID and period, for a measure it shows Measure Kind, Measure ID + Subtype - for a flight it shows ARCID - ADEP and EOBT - Vote options - State change options - Write a message option - Open / Edit Measure option - Open / Edit Roles option
Title	
Status	<Deleted>
Rationale	This ensures that all options needed are available with every menu part clearly divided from the others (e.g. using a line as delimitation) Superceded
Category	<HMI>
Validation Method	

Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0040
Requirement	Individual menu elements may be enabled / disabled.
Title	
Status	<Deleted>
Rationale	For a Hotspot only Topic Id, State Change and Roles are active, where State Change and Roles depend on the role of the user. For a measure and flight all the parts will be displayed but they depend on the role of the user. E.g. disabled options are shown in italics, and cannot be selected.
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0041
Requirement	The Topic ID shall provide links to Open the M-CDM View Details screen, the M-CDM View Communication History Screen.
Title	
Status	<Deleted>
Rationale	When activated from the Timeline, this provides a shortcut Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0042
Requirement	The vote options shall only be present if the user can vote as defined in the Function: Cast a Vote.
Title	
Status	<Deleted>

Rationale	Selecting an enabled vote option cause an update the user's recorded vote. This enables authorise voting, so If present, the vote options added to the menu will be APPROVED, REJECTED, STANDBY If the user is the topic Initiator he has an extra voice RESET ALL VOTES. If present, all vote options will be enabled, except for that option corresponding to the user's previous vote (if any). Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0044
Requirement	The write a message options shall consist of a line added to the menu WRITE A MESSAGE
Title	
Status	<Deleted>
Rationale	When selected this activates the Function: Add comments. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0045
Requirement	The Open / Edit measure option shall consist of a link added to the menu OPEN/EDIT MEASURE EDITOR.
Title	
Status	<Deleted>
Rationale	When selected the link opens the Measure Editor where the actor can see the measure data and eventually edit them (if allowed). Note: It's visible only when the topic selected is a measure Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0046

Requirement	The Open / Edit Roles option shall consist of a link added to the menu OPEN/ EDIT TOPIC ROLES.
Title	
Status	<Deleted>
Rationale	When selected the link opens the M-CDM View Roles Tab where the actor can see the topic roles and eventually edit them (if allowed) as specified in the paragraph M-CDM Actors & Roles display. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0047
Requirement	Once a valid option has been clicked upon the the system shall remove the popup menu.
Title	
Status	<Deleted>
Rationale	Clicks on or outside the menu remove and the popup menu. Outside, no action occurs.
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0048
Requirement	When a topic is selected in the M-CDM List, the system shall display the related content in the M-CDM View if the user has a role at that level.
Title	
Status	<Deleted>

Rationale	This gives visibility on the elements with a different set of information according to the topic selected. The elements represented on the View: - A Communication history panel displaying: -- List of stamped free text with the identification of the originator actor -- List of stamped system pre-formatted text generated at punctual identified milestones during the M-CDM process (ex: M-CDM state change, due date warning, approval by actor …) - A hotspot/measure/flight details screen, divided in 3 tabs: -- details tab --A roles tab to edit actors and roles -- An Impact Tab Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0050
Requirement	The system shall show the following information in the message history panel: - Old (i.e. previously read) messages are shown in normal font. - New (i.e. unread) messages are shown in bold font. - Human messages are shown in a colour. - System messages are shown in a different colour from human messages. - A system message for a new measure incoming or outcoming (measure in Proposed state) is shown in a different colour from human messages and other system messages.
Title	
Status	<Deleted>
Rationale	Where the unread messages are those which are arrived since the expanded view was last opened for this coordination, meaning since this coordination was last selected. Note: Only actor with a role in the topic can enter messages in the Communication History Screen. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0051
Requirement	The system shall provide the following possible system messages: - there is a new incoming Measure/Flight (i.e. put in M-CDM State “Proposed” by another actor) - the measure/flight changes M-CDM state - a user gives his/her vote - all the actors in a measure have given their vote - other changes to the measure/flight contents, particularly: -- one or more deadlines have been edited -- one or more roles have been edited -- one or more actors have been edited -- one or more flights have been edited -- any other parameter in the measure, - deadlines approaching, for warning and alert
Title	
Status	<Deleted>
Rationale	The messages description is: - “The Measure/Flight <Topic ID> is proposed for your attention.” - “The Measure/Flight <Topic ID> is moved to <M-CDM State>.” - “Actor <ACTOR ID> approved/rejected the Measure/Flight <Topic ID>.” - “ All actors voted on Measure <Topic ID>.” - “The Measure <Topic ID> definition has been updated.” - Warning: <Topic ID> will reach the deadline in XX minutes. - Alert: <Topic ID> will reach the deadline in XX minutes. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0052
Requirement	When a topic is selected in the M-CDM List, the system shall display the related content in the M-CDM View under 3 different tabs. - Details - Roles - Impact
Title	
Status	<Deleted>
Rationale	The content of the tab varies according to the topic selected (Hotspot, Measure or Flight) and according to the Kind of Measure. Superceded

Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0053
Requirement	For the Hotspot the display details shall include: - The following information will be always visible and displayed on the top part: -- Hotspot ID (Composed of TV, Duration, Period): e.g. “HS EHDELHI3 20-1150 - 20” The Item should contain the following hyperlinks >>Link to display Traffic Counts (Occupancy) >> Link to the Hotspot Flight List >> Link to Hotspot Management (if authorized) - In the Details tab: -- Max number of current flights above the Peak OTMV: (xx, 2 numbers digits format) >> Link to display Traffic Counts (Occupancy) chart or table -- Max number of current flights above the Sustained OTMV: (xx, 2 numbers digits)>> Link to display Traffic Counts (Occupancy) chart or table -- Number of flights under coordination process (Draft, Proposed, Coordinated, For Implementation) listed by M-CDM State and total (xx, 2 numbers digits) In the Roles tab: As presented in Paragraph M-CDM Actors and Roles tab In the Impact Tab: Rationale for the STAM Measures
Title	
Status	<Deleted>
Rationale	The current flight data should be displayed only if we’ve already the queries for being retrieved. These two values are both calculated querying the data on the proposals flight list, on each count and taking at the end the maximum amongst the numbers. This is a tentative for an upper bound estimation of the problem, in reality it might be more complex due to several factors (hotspot definition period, flights trends in the Hotspot, two or more peaks due to completely different flights, etc..). It’s also a dynamic value that should decrease when the proposal flights are implemented and become normal flights. Example of number of flights Flights in Draft = 05 Flights in Proposed = 07 … Total number of flights under coordination = 45 Where the flights to be considered are all the flights caught into measure(s) caught into the Hotspot. Superceded
Category	<HMI>
Validation Method	

Verification Method	<Test>

4298
4299 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

4300
4301 [REQ]

Identifier	REQ-13.02.03-TS-3502.0054
Requirement	For the Measure, the display details shall include: - The following information being always visible and displayed on the top part: -- Measure ID >>Link to Measure Editor -- Measure Kind : “Delay” / “Rerouting” -- Measure Subtype >>Link to Measure Editor -- Traffic Volume Traffic volume affected by the regulation -- Reference Location Reference location of the traffic volume. -- WEF Start date and time (dd-hh:mm format) of the regulation. -- UNT End date and time (dd-hh:mm format) of the regulation. In the Details tab: - (If present) Traffic Volume “LCS12X” >> Link to Traffic Volume Flight List - (If present) Contained in Hotspot: “LCS12WX 10:01-10:51” >> Link to the Traffic Count (Occupancy) - Vote Summary, the status of the votes “Approved”, “Not Approved”, “Acknowledged”, Missing” with numbers and ID of the actors in the respective fields, divided at Measure Level and at Flight Level in 2 different tables. - M-CDM State “Draft, Proposed,….” - Initiator e.g. “LFRRFMP” or “EDYYFMP” - Implementer(s) - Actors with Implementer Role, both at measure and flight level. - Deadline times “Time to Coordinate by”, “Time to Start Implementation by”, “Time to Implement by” (hh:mm). The current deadline being highlighted. In the Roles Tab: - As presented in Paragraph M-CDM Actors and Roles tab In the Impact tab: Oplog (from back-end system)
Title	
Status	<Deleted>

Rationale	The ID is normally composed of 7 or 8 characters (last letters the number of the day when the regulation takes act and the first letter of that day e.g.. 21M) The reason for the vote summary is that the same actor might have roles at Measure and Flight Level so we need to make distinction about what he voted for. The information is kept aggregated in the Measure Details because the FMP might want to see only one screen. The Initiator can cancel single actors who voted from the list (Approved, Not Approved, Acknowledged), the cancellation corresponds to reset the vote, putting that Actor in the list of Missing Votes. An Actor will disappear from this list if it has been cancelled from the Roles tab The important thing is that the Measure Roles Tab should contain information both at measure and flight level in order to let the Initiator to work on the Roles Tab the minimum time needed. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0055

Requirement	For the Flight the display details shall include: - The following information being always visible and displayed on the top part: -- ARCID “RYR6RY” >> Link to display Flight Details in the Flight List -- ADEP (Aerodrome of departure) (Icao Code) -- ADES (Aerodrome of destination) (Icao Code) -- EOBD (Estimated off-block date) (dd-mm-yyyy) -- IOBT (Estimated off-block time) (dd-hh:mm) In the Details tab: - Contained in Measure: “ID” >> Link to Measure Editor ((if will be made available to AOs) or to Measure Portlet - (If present) Contained in Hotspot: “LCS12WX 10:01-10:51” >> Link to the Traffic Count (Occupancy) (if will be made available to AOs) - M-CDM State “Draft, Proposed,….” - Vote Summary, the status of the votes “Approved”, “Not Approved”, “Acknowledged”, Missing” with numbers and the actors in the respective fields, at the Flight Level. - Initiator e.g. “LFRRFMP” or “EDYYFMP”, normally the flight has the same Initiator of the Measure. - Implementer(s) - Actors with Implementer Role at flight level only (if there are no Implementers at flight level, the Implementers at measure level is displayed). - Deadline times “Time to Coordinate by”, “Time to Start Implementation by”, “Time to Implement by” (hh:mm). The current deadline being highlighted. In the Roles Tab: - As presented in Paragraph M-CDM Actors and Roles tab= In the Impact tab: The Impact content shall depend on the Kind of Measure applied to the flight and give indication of the costs if the measure is accepted It shall always display: - Measure ID >>Link to Measure Editor - Measure Kind : “Delay” / “Rerouting”” - Measure Subtype - Traffic Volume Traffic volume affected by the regulation - Reference Location Reference location of the traffic volume. - WEF Start date and time (dd-hh:mm format) of the regulation. - UNT End date and time (dd-hh:mm format) of the regulation. For a Rerouting - Measure Description Taken from the Measure Editor - OPLOG For a Regulation - Actual CTOT (hh:mm) - New proposed CTOT (hh:mm) -Difference between the actual CTOT and the new proposed CTOT (hh:mm) - Measure Description. -OPLOG
Title	
Status	<Deleted>
Rationale	This is a general user interaction requirement SUPERCEDED Superceded
Category	<HMI>

Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0056
Requirement	For a given topic, the system shall consider any new messages as read once: - The topic has been globally selected, and hence shown in the M-CDM View details window, - Another topic is then globally selected, causing the previous topic to leave focus
Title	
Status	<Deleted>
Rationale	This is a general user interaction requirement SUPERCEDED Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0057
Requirement	A topic shall appear in the message window if it is globally selected somewhere in the application (i.e. selected either in the TimeLine or in the M-CDM List) and if the user has a role for that topic.
Title	
Status	<Deleted>
Rationale	This is a general user interaction requirement SUPERCEDED Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0058
Requirement	From the M-CDM View the system shall provide the user with the following functionalities: - Cast a vote - Update the M-CDM State - Edit the measure rules - Send a message
Title	

Status	<Deleted>
Rationale	This allows the user to access M-CDM actions Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0059
Requirement	The user may filter the unread messages to include or exclude “system” messages. The system shall make this configurable as part of the preferences settings.
Title	
Status	<Deleted>
Rationale	This allows a more focused view. This option will be configurable in the preferences settings. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0060
Requirement	The Tasks reminder screen shall display the next tasks for the user sorted by due time.
Title	
Status	<Deleted>
Rationale	The task list displays a list of actions that the user has to perform on M-CDM elements, sorted (by default) by due time from the most urgent (on bottom) to the less urgent (on top). Sorting preference can be recorded in the settings preferences of the M-CDM tool. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0061

Requirement	The system shall display the types of tasks: - APPROVAL of a topic - CHECK FOR POTENTIAL ROLE in a topic - IMPLEMENT the measure (at measure/flight level) - STATE_UPDATE of the topic - EVALUATE_RESULTS for STATE_UPDATE - HANDLE_TOPIC in a INTERRUPTED state
Title	
Status	<Deleted>
Rationale	This is a general user interaction requirement SUPERCEDED Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

4330
4331 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

4332
4333 [REQ]

Identifier	REQ-13.02.03-TS-3502.0062
Requirement	For each task, the system shall display the following information: - Time remaining to perform the task: in minutes (can be negative) - Due time to perform the task: hh:mm - The topic ID - Task description - Incoming / Outgoing indicator
Title	
Status	<Deleted>
Rationale	This is a general user interaction requirement SUPERCEDED Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

4334
4335 [REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

4336
4337 [REQ]

Identifier	REQ-13.02.03-TS-3502.0063
Requirement	The system shall display tasks in 3 different colours, depending on the alerting status.
Title	
Status	<Deleted>

Rationale	Alerting and hence colour (visualisation) is evaluated based on the relative time remaining before the next deadline time - NO_ALERT if (remaining time > WARNING_THRESHOLD) - WARNING if (WARNING_THRESHOLD <= remaining time < ALERT_THRESHOLD) - ALERT if (ALERT_THRESHOLD <= remaining time) Where Warning and Alert Threshold can be customized in the preference settings by the user, when the topic is in INTERRUPTED state we set as “next deadline time” the deadline of Time to Coordinate. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0064
Requirement	Depending on the task type, tasks shall appear to the user when the following action is expected from the user: - APPROVAL: the user has to cast a vote for the topic (Topic in Proposed or Interrupted State and actor has role For Approval or Implementer and didn’t vote Accepted or Rejected yet); if topic is in PROPOSED the due time for the task is the Time to Coordinate (TTC), if topic is in INTERRUPTED the deadline is Time to Coordinate. (TTC) - IMPLEMENT: the user has to implement the topic (Topic in For Implementation State and actor has role For Implementation). The due time for the task is the Time to Implement (TTI) - STATE UPDATE: the user has to update the topic State (Topic not in Abandoned/Finished/Draft/Implemented/Interrupted and actor has role Initiator) The due time depends on the state: -- if State is PROPOSED due time is TTC -- if state is COORDINATED due time is Time to Start Implementation (TTS) -- if State is FOR IMPLEMENTATION due time is TTI - EVALUATE_RESULTS for STATE_UPDATE: the user has to update the topic State evaluating the summary of the votes (topic in Proposed State, actor has role Initiator and all related actors casted a vote). The due time is TTC -HANDLE TOPIC: external systems changed the topic into INTERRUPTED, so according to the situation the Initiator has to evaluate what to do, he could discard the topic changing the state in ABANDONED, he could modify the measure and ask for new votes, he could switch the state back to the previous,… (Topic in Interrupted state and actor has role Initiator). The due time is time to coordinate (TTC)
Title	
Status	<Deleted>

Rationale	Here STATE UPDATE and EVALUATE_RESULTS are mutually exclusive for the same topic (it means that STATE UPDATE) will be displayed while the voting is on, as soon as everyone voted STATE UPDATE disappears and EVALUATE_RESULTS appears). For the last four, if the user has role initiator, if the topic is a Measure containing one or more flights, the task will appear only once (at Measure Level) if the flights have the same M-CDM State of the Measure. If there are flights contained in the measure but with a State different from the Measure itself (for example flights added while coordination is on-going) then they will be considered as different tasks. For IMPLEMENT and STATE UPDATE, If the Initiator has also the role For Implementation (it's the unique exception where an actor can have two roles), if the topic is a Measure containing one or more flights, if the flights have the same M-CDM State of the Measure, only the task IMPLEMENT will appear at Measure Level . If there are flights contained in the measure but with a State different from the Measure itself (for example flights added while coordination is on-going) then they will be considered as different tasks. Note to avoid an algorithm too complex, IMPLEMENT and STATE UPDATE could be displayed at the same time for the FMP Initiator. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0065
Requirement	The task description shall depend on the type of task and is as following: - APPROVAL: “Vote for <Topic ID> proposal” - CHECK FOR POTENTIAL ROLE: “Check the roles for <Flight ID> - IMPLEMENT: “Implement the M-CDM <Topic ID>” - STATE_UPDATE: “Set M-CDM state to <NEXT_STATE>” - EVALUATE_RESULTS for STATE_UPDATE: “All actors voted on <Topic ID>, set M-CDM state to <NEXT_STATE>” - HANDLE TOPIC: “Manage <Topic ID>, its M-CDM state is INTERRUPTED”
Title	
Status	<Deleted>
Rationale	Where for task IMPLEMENT according to the Kind and Subtype of Measure to be implemented the message description can be customized (e.g. for a Ground Rerouting it’s asked AOs to file a new Flight Plan, for a Ground Delay to send a new Slot message etc..) Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0066
Requirement	The system shall display the notification screen in the bottom left corner of the collaboration forum.
Title	
Status	<Deleted>
Rationale	This list displays the last human and system messages for M-CDM Topics for which the user has a role. In this screen all the messages are “accumulated” by time from the most recent (at the bottom) to the less recent. The messages shown in the Notification Screen are not “grouped” by M-CDM topic, the grouping is present in the M-CDM View - Communication History Screen. The querying and filtering on the M-CDM List will not affect the Notification Screen and its content.
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0067
Requirement	The system shall allow the user to set in the customisation settings the type of messages he wants to display: - Display ALL - Display only human messages - Display only type of messages selected by the user (human and system with several subcategories of system messages)
Title	
Status	<Deleted>
Rationale	This is a general user interaction requirement SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0068

Requirement	The notifications shall contain - The topic ID - An indicator if the message is a human message - An indicator if the message received is for an incoming or outgoing topic. - The beginning of the message, limited to a number of characters. -An unread indicator (e.g. bold font)
Title	
Status	<Deleted>
Rationale	This is a general user interaction requirement SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0069
Requirement	When the user selects the notification, the system shall remove the unread indicator.
Title	
Status	<Deleted>
Rationale	This is a general user interaction requirement SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0070
Requirement	When the user selects the notification the system shall “globally select” the topic.
Title	
Status	<Deleted>
Rationale	If the topic is not at the moment visible on the M-CDM List/Timeline (due to active querying and filtering) a messages needs to appear and proposes to the user to reset them to default. SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0073
Requirement	From the time line the system shall allow the user to provide some inputs to the item: - Open the M-CDM View for the selected Measure or for one of the flights contained in it. - Votes (casted or reset) - Update M-CDM State - Write messages for the topic - Open / Edit Measure - Open / Edit Roles for the topic
Title	
Status	<Deleted>
Rationale	This is a general user interaction requirement SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0074
Requirement	The system shall split the timeline into two main parts: - The left hand side - The right hand side
Title	
Status	<Deleted>
Rationale	The left hand side displaying the measure tasks/activities the user has to perform The right hand side displaying measure tasks/activities other users have to perform (and are of interest to the user) The right-hand side is also used to conveniently (re)display M-CDM information grouped by Hotspot. That way, in a single glance, the user can gauge the overall progress in resolving the Hotspot. SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0075

Requirement	The Time Line shall display measure reminders relative to one or more given Actors.
Title	
Status	<Deleted>
Rationale	The timeline does not give a “general” overview of the measures in a system. Rather, it gives an overview of the measures (and related tasks to be performed) for one or more given Users SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0076
Requirement	The Time Line shall include the following: - Vertical time axis - Navigation controls - Off-screen content indicators - Reminders, divided in 2 categories: -- Reminders for Contextual information useful to the user -- Reminders for Tasks to be performed by the user
Title	
Status	<Deleted>
Rationale	This is a general user interaction requirement SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0077
Requirement	The vertical axis shall show UTC time.
Title	
Status	<Deleted>
Rationale	This shows the time and has minute marks, 5 minute marks, and 10 minute marks with HHMM text. No effort is made to adjust the amount of HHMM text, based on current zoom settings. The axis is placed at 45% width.
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0078
Requirement	The vertical time axis shall display later UTC time at the top, and earlier UTC time at the bottom
Title	
Status	<Deleted>
Rationale	This is a general user interaction requirement
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0079
Requirement	The min/max extent of the vertical axis shall defined in terms of relative time.
Title	
Status	<Deleted>
Rationale	The timescale will always show for example [-30min, +90min] compared to 'current UTC time'.
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0080
Requirement	The timeline background shall distinguish between future time and past time.
Title	
Status	<Deleted>
Rationale	This distinguishes past from future visually, e.g. use of lightsteelblue for future time, and lightblue for past time. SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0081
Requirement	The timeline shall allow easy navigation: - View left side - it displays all the task reminders on the left side + the timeline + a small portion of what is contained on the right side of the timeline. - View centre side - it displays partially and equally both sides of the timeline. The information readable can be complete or partial it depends on the reminders content. - View right side - it displays all the hotspot and measure contextual reminders on the right side + the timeline + a small portion of what is contained on the left side of the timeline. - page up - page down - zoom in - zoom out - save/restore timescale settings - synchronize with global selection (retrieve on the timeline topics selected on other screens of the M-CDM tool) - panning/off-screen content navigation
Title	
Status	<Deleted>
Rationale	Currently this allows navigation by button. The text labels used in for the buttons: -"^" - "v" - " +" - " -" - "0S" " OR" "1S" "1R" - "<>" - "^" and "v" SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0082
Requirement	Clicking on the page up button shall cause the timeline vertical axis (and contents) to pan down by 50%, thus displaying later timeline content.
Title	
Status	<Deleted>
Rationale	So, if the timeline is showing 10h00(bottom) to 11h00(top), then paging up will cause the mid-point (10h30) to now be at the bottom. Hence, the display shows 10h30-11h30.
Category	<HMI>

Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0083
Requirement	Clicking on the page down button shall cause the timeline vertical axis (and contents) to pan up by 50%, thus displaying earlier timeline content.
Title	
Status	<Deleted>
Rationale	So, if the timeline is showing 10h00(bottom) to 11h00(top), then paging down will cause the mid-point (10h30) to now be at the top. Hence, the display shows 09h30-10h30.
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0084
Requirement	Clicking on the zoom in button shall cause the timeline vertical axis (and contents) to: - maintain the same minimum time (at the bottom) - reduce the displayed time duration by 50%
Title	
Status	<Deleted>
Rationale	So, if the timeline is showing 10h00(bottom) to 11h00(top), then zooming in will cause the timescale to show 10h00 - 10h30. It was decided to “maintain the same minimum time”, given most use cases involve the actor wishing to see less/more future time, but staying fixed with respect to an origin (i.e. now time).
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0085

Requirement	Clicking on the zoom out button shall cause the timeline vertical axis (and contents) to - maintain the same minimum time (at the bottom) - increase the displayed time duration by 100%
Title	
Status	<Deleted>
Rationale	In other words, if the timeline is showing 10h00(bottom) to 11h00(top), then zooming in will cause the timescale to show 10h00 - 12h00. It was decided to "maintain the same minimum time", given most use cases involve the actor wishing to see less/more future time, but staying fixed with respect to an origin (i.e. now time).
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0086
Requirement	Moving the mouse wheel "northwards" (towards the screen) shall cause the timeline vertical axis (and contents) to shift down fractionally, thus displaying later timeline content
Title	
Status	<Deleted>
Rationale	This allows northwards "fractional" panning (currently set to 10%). Wheel velocity factors are not taken into account.
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0087
Requirement	Moving the mouse wheel "southwards" (towards the user) shall cause the timeline vertical axis (and contents) to shift up fractionally, thus displaying earlier timeline content
Title	
Status	<Deleted>
Rationale	This allows southwards "fractional" panning (currently set to 10%). Wheel velocity factors are not taken into account.
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0088
Requirement	Moving the mouse wheel “northwards” (towards the screen) with either SHIFT, ALT or CTRL depressed shall cause the timeline to zoom out fractionally
Title	
Status	<Deleted>
Rationale	This allows northwards “fractional” zoom and is currently set at 125% (of current displayed duration). Wheel velocity factors are not taken into account. Note: associating North with Zoom Out is contrary to popular usage. However, it was deemed appropriate so that North is always associated with “seeing more future time” (be it via panning or zooming).
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0089
Requirement	Moving the mouse wheel “southwards” (towards the user) with either SHIFT, ALT or CTRL depressed shall cause the timeline to zoom out fractionally
Title	
Status	<Deleted>
Rationale	This allows southwards “fractional” zoom and is currently set at 75% (of current displayed duration). Wheel velocity factors are not taken into account. (Note: associating South with Zoom In is contrary to popular usage. However, it was deemed appropriate so that South is always associated with “seeing less future time” (be it via panning or zooming).
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0090
Requirement	The system shall configure the timeline with [min, max] relative time values beyond which panning/zooming is not permitted
Title	

Status	<Deleted>
Rationale	This puts bounds on the panning/zooming possibilities. The timeline is configured by default to the following min/max bounds [-3 hours, +9 hours] SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0091
Requirement	The system shall configure the timeline with a minimum time duration beyond which zooming in is not permitted.
Title	
Status	<Deleted>
Rationale	This puts bounds on the panning/zooming possibilities. The timeline is configured by default to show, at maximum zoom, 10 minutes of time. SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0092
Requirement	Clicking on the save button shall record the current vertical time axis min/max time values (in relative terms) to be recorded
Title	
Status	<Deleted>
Rationale	So, the display may show 10h00-12h00, with current time @ 10h10, but the recorded values will be [-10min, +110min]
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0093

Requirement	Clicking on the restore button shall cause the vertical time axis to be panned/zoomed to the previously recorded min, max time values (in relative terms)
Title	
Status	<Deleted>
Rationale	This allows the user to revert to previous settings.
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0094
Requirement	Clicking on the synchronize button shall cause the vertical time axis to pan.
Title	
Status	<Deleted>
Rationale	This allows currently globally selected measure to appear in the centre of the timeline.
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0095
Requirement	The timeline shall react to Window resize events, - maintaining the same minimum time (at the bottom) - maintaining the same zoom factor - adjusting the maximum time (at the time) as appropriate
Title	
Status	<Deleted>
Rationale	This is a general user interaction requirement
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0096

Requirement	The system shall graphically represent Reminders with - a label (possibly with exhaustive information) - an attachment line joining the label to the vertical time axis at its 'reminder time'
Title	
Status	<Deleted>
Rationale	This allows reminders to be attached to the timeline. The line may be attached to the label on either its left or right hand side. SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0097
Requirement	The system shall delete reminders that occur in the past beyond a given threshold value, automatically from the timeline.
Title	
Status	<Deleted>
Rationale	This ensures obsolete information is removed. Currently configured to -2 hours. SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0098
Requirement	The system shall display reminders for Contextual information on the right-hand side of the vertical time axis.
Title	
Status	<Deleted>
Rationale	This is a general user interaction requirement SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0099
Requirement	The system shall display the reminders for Tasks on the left-hand side of the vertical time axis.
Title	
Status	<Deleted>
Rationale	This is a general user interaction requirement SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0100
Requirement	The timeline shall, if so configured, be able to split reminder labels over several lines, if the window width is insufficient to display the label on a single line.
Title	
Status	<Deleted>
Rationale	This is a general user interaction requirement
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0101
Requirement	The system shall add task reminders to the timeline if and only if the measure - concerns the user, and - has a next_expected_activity allocated to the user, and - is not in the state DRAFT, ABANDONED or FINISHED
Title	
Status	<Deleted>
Rationale	So, the timeline user has to either - approval a measure - implement a measure or - manage the next measure state change SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0102
Requirement	The Task reminder label shall consist of the following fields - implementer indicator - data change (or freshness) indicator - measure ID - measure M-CDM state information field - Initiator field (for Incoming Measures only) - deadline times field (Next deadline / Time to implement by) - Next action indicator
Title	
Status	<Deleted>
Rationale	This is a general user interaction requirement SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0103
Requirement	Selecting any subpart of the reminder label shall cause the measure to be globally selected.
Title	
Status	<Deleted>
Rationale	This is a generic selection mechanism. This requirement is applicable also to Hotspot and Measure Contextual Reminders. SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0104
Requirement	A task reminder for a globally selected topic shall have its label drawn with a distinguishable colour filled border.
Title	
Status	<Deleted>
Rationale	This visual requirement is applicable also to Hotspot and Measure Contextual Reminders. SUPERCEDED
Category	<HMI>

Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0105
Requirement	The implementer indicator shall only be displayed if the timeline user is the appointed implementer for the topic.
Title	
Status	<Deleted>
Rationale	This visual indicator requirement is applicable also to Measure Contextual Reminders. The current system displays this indicator as an “I” character, surrounded by a white box. SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0106
Requirement	The data change indicator shall only be displayed if the measure has data considered new for the end-user, as defined in the requirements in the section Data Change Notification.
Title	
Status	<Deleted>
Rationale	This is to ensure that only relevant information is displayed and in a contextual way. For Task Reminders, the data change indicator is placed on the left hand side of the label, using a small font. This requirement is applicable also to Measure Contextual Reminders. For Hotspot and Measure Contextual Reminders, the data change indicator is placed on the right hand side of the label, using a small font. SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0107
Requirement	The data change indicator shall have the following value (in descending order to precedence) - “MSG” - if unread human-generated messages exist for this measure - “NEW” - if the measure is considered new for this user - “UPD” - if unread system-generated messages exist and the ‘update indicator’ behaviour is configured.
Title	
Status	<Deleted>
Rationale	This visual data indicator requirement is applicable also to Hotspot and Measure Contextual Reminders. For the Hotspot only if will be possible to send messages at the Hotspot level, but no system messages will be supported. SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0108
Requirement	If the measure state is PROPOSED, then measure state indicator field shall graphically indicate the status of each Measure Approval: - AWAITING - a white circle - APPROVED - a green circle - STANDBY - an orange circle - REJECTED - a red circle
Title	
Status	<Deleted>
Rationale	This is another visualisation of data. The user’s own approval is drawn with a thick black surrounding line. This requirement is applicable also to Measure Contextual Reminders. SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0109
Requirement	The deadline times field shall contain: - “<time-to-implement-by>” expressed in relative minutes, if the measure state is FOR_IMPLEMENTATION - “<next-deadline-time> / <time-to-implement-by>” expressed in relative minutes, for all remaining measure states.

Title	
Status	<Deleted>
Rationale	This is a general user interaction requirement SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0110
Requirement	Depending on the next_expected_activity and the tasks for the timeline user, the action indicator shall display the following text: - When he has to approve a measure -> “TO APPR” - When he has to implement a measure => “TO IMPL” - When he has to update the M-CDM state => “CHG STATE” - When he has to manage a Interrupted Measure => “HANDLE INT”
Title	
Status	<Deleted>
Rationale	This is another visualisation of data. This requirement is applicable also to Measure Contextual Reminders. The Task “All actors voted” is not in the list because there is already a visual representation for it, all the circles in the Reminder are coloured when people express their votes. SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0111
Requirement	The system shall attach Task Reminder to the vertical time axis at the next_deadline_time.
Title	
Status	<Deleted>
Rationale	This constitutes the Reminder Time. SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0112
Requirement	The measure summary fields, the system shall display the hotspot field and measure state information field colour coded dependent on whether the Measure is Incoming or Outgoing.
Title	
Status	<Deleted>
Rationale	This is another visualisation of data. This requirement is applicable also to Hotspot and Measure Contextual Reminders. Currently the following colours: lavender for outgoing, khaki for incoming. SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0113
Requirement	The system shall display the deadline times field and action indicator information field colour coded based on the alerting rules (see Alerting Rules paragraph): - No_ALERT : no alert colour - WARNING :warning colour - ALERT: alert colour
Title	
Status	<Deleted>
Rationale	This is another visualisation of data. This requirement is applicable also to Measure Contextual Reminders. Currently uses the following colours : - greenyellow - gold -salmon SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0114

Requirement	Clicking on the topic identifier, deadline times field, or action indicator information field shall raise the popup menu
Title	
Status	<Deleted>
Rationale	Defines context for popup. This requirement is applicable to Task, Hotspot and Measure Contextual Reminders.
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0115
Requirement	Reminders for Contextual information shall cover the following: - Hotspots created by the User - Measures which concern the User, and for which the next-expected-activity is not allocated to the User
Title	
Status	<Deleted>
Rationale	This is a general user interaction requirement SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0116
Requirement	The system shall add hotspot reminders to the timeline if and only if - the timeline user is the Initiator of a measure associated to the Hotspot.
Title	
Status	<Deleted>
Rationale	It might happen that the creator of the Hotspot it's not the same user who creates the Measure. SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0117
Requirement	The hotspot reminder shall display: - a hotspot summary label - a label for each measure belonging to the hotspot, identical to the task reminder
Title	
Status	<Deleted>
Rationale	This is a general user interaction requirement SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0118
Requirement	The system shall attach the hotspot reminder to the vertical time axis at the 'hotspot start time'.
Title	
Status	<Deleted>
Rationale	This is a general user interaction requirement SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0119
Requirement	A semi-transparent filled box, aligned over the vertical time axis, shall indicate the duration of the hotspot until its end-time.
Title	
Status	<Deleted>
Rationale	This is a general user interaction requirement SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0120

Requirement	The hotspot summary label shall contain: - hotspot identifier - hotspot start time - hotspot end time
Title	
Status	<Deleted>
Rationale	The requirements concerning the 'hotspot measure' labels are almost identical to the Measure Contextual Reminder labels. The differences are outlined below Notable differences include: - The deadline and action indicator fields may be empty, since there may not be any further actions. In this case, a small text button is always shown so that the user may still access the Measure menu - Measures in DRAFT, ABANDONED or FINISHED state will be shown in a semi-transparent manner (remark: they're not shown on the left-hand side of the timeline). SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0121
Requirement	The system shall add measure contextual reminders to the right-hand side of the timeline, if and only if : - the user is concerned by the measure, and there is a next_expected_activity, - the user is concerned by the measure but is not responsible for the next_expected_activity.
Title	
Status	<Deleted>
Rationale	The user still needs to see a contextual reminder of the next-expected-activity, in order to maintain situational awareness, but is not directly responsible for performing the aforementioned activity. This typically happens in the following cases : - user is added to the measure "for information" list of actors - measure-state = PROPOSED and the user is an approver, but has already voted ACCEPT/REJECT - user is not the implementer, and state = FOR_IMPLEMENTATION. - user is not the initiator and state = PROPOSED, COORDINATED. - measure-state = IMPLEMENTED and the system has yet to move the measure to FINISHED. SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0122
Requirement	The measure contextual reminder label shall contain the following fields: - implementer indicator - data change (or freshness) indicator - measure ID - measure M-CDM state information field - Initiator field (for Incoming Measures only) - deadline times field (Next deadline / Time to implement by) - Next action indicator
Title	
Status	<Deleted>
Rationale	This is a general user interaction requirement SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0123
Requirement	The hotspot indicator field shall only be present if the measure is Outgoing.
Title	
Status	<Deleted>
Rationale	As it has been created by that user SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0124
Requirement	The deadline times field shall contain: - " " - if the measure state is IMPLEMENTED, ABANDONED or FINISHED - "<time-to-implement-by>" expressed in relative minutes, if the measure state is FOR_IMPLEMENTATION - "<next-deadline-time> / <time-to-implement-by>" expressed in relative minutes, for all remaining measure states.
Title	
Status	<Deleted>
Rationale	This is a general user interaction requirement SUPERCEDED
Category	<HMI>
Validation Method	

Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0125
Requirement	The system shall attach any measure Contextual Reminder to the vertical time axis at the next_deadline_time.
Title	
Status	<Deleted>
Rationale	This constitutes the Reminder Time. If the next_deadline_time is N/A then <time-to-implement-by> will be used. The "exception" listed above concerns the case of showing a reminder to change state from IMPLEMENTED to FINISHED. There is no specific "by" time defined for this - therefore, we simply keep the reminder attached at the time-to-implement-by time. It is deemed useful to keep this contextual reminder for IMPLEMENTED->FINISHED since certain FMPs may wish to monitor the progress of the topic (e.g. a level cap). SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0126
Requirement	The system shall display all fields of the label in semi-transparent if the timeline user's role is "for information" only.
Title	
Status	<Deleted>
Rationale	This is a general user interaction requirement SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0127
Requirement	The off-screen indicators, as their name suggests, shall indicate to the user if there is extra timeline content above or below the currently visible time horizon.
Title	
Status	<Deleted>

Rationale	This extra content may be: Left hand content - measure task reminders Right hand content - Contextual measure reminders The indicator may also be colour-coded to indicate the off-screen content requires the user's attention. The basic rule for "requiring attention" is: - (Contextual or Task) measure reminder off-screen which is in an alert state - (Contextual or Task) measure reminder off-screen with an unread human message - (Contextual or Task) measure reminder off-screen with an unread system message SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0128
Requirement	The system shall display an Off-screen indicator, placed at the top of the vertical axis, if there are Measure Task or Contextual Measure reminders for which the 'reminder time' is after the maximum time represented on the vertical axis.
Title	
Status	<Deleted>
Rationale	This is a visual cue, currently it draws the indicator as a ^ sign surrounded by an unfilled black box SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0129
Requirement	The system shall display an Off-screen indicator, placed at the bottom of the vertical axis, if there exist measure Task or Contextual measure reminders for which the 'reminder time' is less than the minimum time represented on the vertical axis
Title	
Status	<Deleted>

Rationale	This is a visual cue, currently it draws the indicator as a v sign surrounded by an unfilled black box SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0130
Requirement	The off-screen indicator shall assume a 'requires attention' state if the off-screen content includes: - (Contextual or Task) measure reminder off-screen which is in an alert state - (Contextual or Task) measure reminder off-screen with an unread human message - (Contextual or Task) measure reminder off-screen with an unread system message (*)
Title	
Status	<Deleted>
Rationale	This is a visual cue, currently it will fill the indicator's black box with white colour. (*) this case is only applied if the HMI is configured for Data Change Notifications based on unread system message updates. See section Preference Settings. SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0131
Requirement	The M-CDM toll shall have a section to define local user preferences that interacts with the different part of the M-CDM tool: - On messages (for the notification screen)
Title	
Status	<Deleted>
Rationale	The M-CDM toll takes into account user preferences: On messages (for the notification screen) - Display ALL - Display only human messages - Display only type of messages selected by the user (human and system with several subcategories of system messages) SUPERCEDED
Category	<HMI>

Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0132
Requirement	The M-CDM toll shall have a section to define local user preferences that interacts with the different part of the M-CDM tool: - On tasks (for the task screen)
Title	
Status	<Deleted>
Rationale	The M-CDM toll takes into account user preferences: On tasks (for the task screen) - Sorting by type (Incoming/Outgoing) - Sorting chronologically: most urgent on top / most urgent at bottom) - Number of task to be displayed at the same time on the screen SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0133
Requirement	The M-CDM toll shall have a section to define local user preferences that interacts with the different part of the M-CDM tool: - On notification (for the notification screen)
Title	
Status	<Deleted>
Rationale	The M-CDM toll takes into account user preferences: On notification (for the notification screen) - Sort notification by type (Incoming / Outgoing) - Sort notifications chronologically: most urgent on top / most urgent at bottom)Sort - Number of notifications to be displayed at the same time on the screen SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0134
Requirement	The M-CDM toll shall have a section to define local user preferences that interacts with the different part of the M-CDM tool: - On Details Screens (for M-CDM View)
Title	
Status	<Deleted>
Rationale	The M-CDM toll takes into account user preferences: On Details Screens (for M-CDM View) - Open by default for a flight Details/Roles/Impact Tab - Open by default for a measure Details/Roles/Impact Tab SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0135
Requirement	The M-CDM toll shall have a section to define local user preferences that interacts with the different part of the M-CDM tool: - On Topic Levels (for M-CDM List)
Title	
Status	<Deleted>
Rationale	On Topic Levels (for M-CDM List) - Show only topics where actor has a role. Please note that the possibility to hide columns and display only topics contain specific values for the column (e.g. M-CDM States selected by the user) are preferences available directly in the M-CDM List. SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0136
Requirement	The M-CDM toll shall have a section to define local user preferences that interacts with the different part of the M-CDM tool: - On threshold values (for M-CDM List - Task - Timeline - Notification)
Title	
Status	<Deleted>

Rationale	On threshold values (for M-CDM List - Task - Timeline - Notification) - Warning set to XX minutes - Alert set to XX minutes SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0137
Requirement	The M-CDM toll shall have a section to define local user preferences that interacts with the different part of the M-CDM tool: - On vertical axis (for Timeline)
Title	
Status	<Deleted>
Rationale	On vertical axis (for Timeline) - Set the default timespan to XXX minutes - On Reminders (for Timeline) - Delete reminder from Timeline if occurred more than XXX minutes ago. SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3502.0138
Requirement	The system shall allow the user to type free text in the text box in the M-CDM View - Communication History Screen.
Title	
Status	<Deleted>

Rationale	Only users having a role in the Topic can enter a message. Message will be inserted by pressing the “Return” key or by selecting “Send Msg”. Note: After pressing send the message box should clear itself to show the user the message as gone. These messages will be displayed in the Communication History screen. Together with the message the following information will be sent: - An Identification of the sender (e.g. Token ID of the user) - Actor role of the sender - A timestamp The timestamp will contain the time (hh:mm) and the date (dd/mm/yyyy) information. SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3503.0001
Requirement	The estimated or calculated take off time (i.e. E/CTOT column) shall always be filled in when the user is authorised to initiate force CTOT action, even when the slot is not yet published.
Title	
Status	<Deleted>
Rationale	To provide the information required to manage efficiently the force CTOT action SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3503.0002
Requirement	The system shall allow the user to identify the delay measure identifier for which the force CTOT is imposed for each selected flight.
Title	
Status	<Deleted>
Rationale	This is a flight related requirement for flight list user interaction SUPERCEDED SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3503.0003
Requirement	The system shall use the regulation list query/reply with the target date selected for the initiating flight list to populate a cherry picked measure drop down list or support input auto completion functionality.
Title	
Status	<Deleted>
Rationale	This is to facilitate the choice of an existing cherry picked measure of delay kind for which a force CTOT is to be requested for a flight SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3503.0004
Requirement	The system shall allow the user to identify the force CTOT kind (TOT, TO …) for each selected flight.
Title	
Status	<Deleted>
Rationale	HMI requirement , for ease the kind “TOT” comes pre-selected initially. SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3503.0005
Requirement	The system shall allow a new calculated time value to be imposed to the flight, based on the selected force CTOT kind.
Title	
Status	<Deleted>
Rationale	The user identifies the new calculated time value to be imposed to the flight, based on the selected force CTOT kind SUPERCEDED
Category	<HMI>
Validation Method	

Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3503.0006
Requirement	The system shall allow a proposal version of the flight to be created based on any force CTOT request.
Title	
Status	<Deleted>
Rationale	The user identifies if a proposal version of the flight is to be created based on this force CTOT request. SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3503.0007
Requirement	The system shall propose the following initial values by default for the force CTOT action of each selected flight: - TOT as the default kind - Current CTOT of the flight as new calculated time value, if the flight is already regulated. Otherwise current ETOT is proposed by default. - Proposal flight to be created by default
Title	
Status	<Deleted>
Rationale	This is a flight related requirement for flight list user interaction SUPERCEDED SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3503.0010
Requirement	When a force CTOT request is successful for one flight, the system shall display the result message and disable related input controls.
Title	
Status	<Deleted>
Rationale	HMI feedback SUPERCEDED

Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3503.0011
Requirement	When a force CTOT request fails for one flight, the system shall display the result message and enable related input controls to initiate subsequent request.
Title	
Status	<Deleted>
Rationale	HMI feedback SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3503.0012
Requirement	The system shall allow Authorised to initiate the following actions for selected flights from the flight list in the measure editor: - Force CTOT - Remove Flight
Title	
Status	<Deleted>
Rationale	This is a flight related requirement from STAM use case SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3503.0013
Requirement	To submit the force CTOT request for a selected flight, the system shall allow the user to identify: - The identifier of a cherry picked measure of delay kind - The kind of force CTOT operation (TO, TOT …) - The time for the corresponding force CTOT kind - If this force CTOT should generate a proposal flight
Title	
Status	<Deleted>

Rationale	This is a flight related requirement for flight list user interaction SUPERCEDED
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3504.0001
Requirement	The system shall support a number of measure kinds including: - Delay - Rerouting
Title	
Status	<Deleted>
Rationale	The measure kind identifies the kind of ATFCM measure to be implemented by the system: Delay: typically a regulation that manages delay on affected flights Rerouting: typically a rerouting measure that forces affected flights to use another route path SUPERCEDED
Category	<Design>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3504.0003
Requirement	The measure type shall include: - If the measure was initiated by an FMP or by NMC - And if the flights affected by the measure are selected manually by the initiator or automatically based on the identified regulated location.
Title	
Status	<Deleted>
Rationale	The measure type identifies the necessary combined information SUPERCEDED
Category	<Design>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3504.0004
Requirement	The system shall allow 2 possible types associated to a Force CTOT request: - TOT - TO
Title	
Status	<Deleted>
Rationale	These are perhaps restrictive, the following additional possible types of Force CTOT are kept here to be considered for future elaboration of this requirement. • MNM TOT: force shifting of calculated flight time by imposing a minimum Take Off Time (i.e. search a free slot after imposed time) • MNM TO: force shifting of calculated flight time by imposing a minimum Time Over the regulated location (i.e. search a free slot after imposed time) SUPERCEDED
Category	<Design>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3504.0005
Requirement	The system shall ensure that a Measure or a flight is in one of the M-CDM states: - Not Required - Draft - Proposed (sometimes called “coordinating”) - Coordinated - For Implementation (known as For_Impl) - Implemented - Finished - Abandoned - Interrupted (i.e. automatically changed by the system)
Title	
Status	<Deleted>
Rationale	This is a M_CDM related business rule SUPERCEDED
Category	<Design>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3504.0006

Requirement	The system shall ensure that the state of the STAM is either: - Draft - Proposed - Coordinated - For Implementation - Implemented - Abandoned - Not Required
Title	
Status	<Deleted>

Rationale	SUPERCEDED Managing the M-CDM process involves consideration of / changes to the state of the STAM concerned. Draft - The STAM is being created by the FMP who would like to solve a hotspot. The STAM is not known by anyone but that FMP (i.e. M-CDM is not started yet). - The STAM is draft even while it is incomplete, for example the FMP has selected that there will be level capping but not yet indicated what that level is. - The STAM may be reset from subsequent states to Draft when the proposed measure cannot be accepted by some ATS or Aircraft Operator actors and it needs to be changed. - If required, the STAM may also be forced by the Initiator to Abandoned state at this stage. Proposed - The STAM is being shown to all concerned ATS and Aircraft Operator actors in order to get their agreement that the STAM should/could occur (i.e. STAM actors are informed by the start of the STAM collaboration). - When no concerned ATS actors have been identified, the STAM is forced immediately to the Coordinated state. - If required, the STAM may also be forced by the Initiator to Abandoned state at this stage. Coordinated - All the concerned ATS and Aircraft Operator actors have agreed that the STAM should/could occur. - If required, the STAM may also be forced by the Initiator to Abandoned state at this stage. For Implementation - This state follows Coordinated state either immediately, or following some time. The state is needed only in the latter case where the STAM is coordinated and remains dormant - its implementation delayed. - When the Initiator person decides the STAM is really needed the STAM is moved from Coordinated to For Implementation and the job of implementation can begin. The logic is that the implementation should be done and signalled back to the Initiator before the implementation time limit - see below. - The alternative may be that a coordinated STAM is not implemented because the associated hotspot is solved in some other way. In such case the STAM is forced by the Initiator to Abandoned state. Implemented - The actor who should implement the STAM has agreed to implement it at the relevant time - that is at or before the implementation time limit. - Implemented may mean that an action will be taken, for example an ATCO may do something when the flight appears, or implemented may mean that the action has already been taken, for example the aircraft operator may have submitted a change to his flight plan. Whenever possible, the switch to Implemented state is automated by the system, but some manual intervention might be required (ex: implemented by ATCO and not known to the NM systems). - The Implemented state is of most interest when considering the implementation time limit. Abandoned - The STAM will not occur. - A Boolean is attached to indicate if the STAM was forced to abandoned by a manual user action or if it was automatically forced to abandoned by the system (i.e. auto-abandoned). - All STAM Flights are automatically forced to Abandoned when the corresponding STAM is forced to Abandoned. Not Required - The M-CDM is not required for this measure. - Finished (See Measure M-CDM Rules) - Interrupted (See Measure M-CDM Rules)

Category	<Design>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3504.0007
Requirement	the system shall ensure that any STAM Flight is in only one of the STAM states at any one time: - Draft - Proposed - Coordinated - For Implementation - Implemented - Abandoned - Interrupted - Finished
Title	
Status	<Deleted>

Rationale	SUPERCEDED Managing the M-CDM process involves consideration of / changes to the state of the STAM Flight concerned. Draft - The STAM Flight state is Draft while the corresponding STAM is in Draft or in Proposed state (i.e. M-CDM is not started yet while in Draft). - If required, the STAM Flight may also be forced by the Initiator to Abandoned state at this stage. Proposed - The STAM Flight is being shown to all concerned ATS and Aircraft Operator actors in order to get their agreement that the STAM should/could occur (i.e. STAM Flight actors are informed by the start of STAM Flight collaboration phase). - All STAM Flights are automatically forced to Proposed state when the corresponding STAM state becomes Proposed. - When no concerned ATS or Aircraft Operator actors have been identified, the STAM Flight is forced immediately to the Coordinated state when the corresponding STAM is in Coordinated state. - If required, the STAM Flight may also be forced by the Initiator to Abandoned state at this stage. Coordinated - All the concerned ATS and Aircraft Operator actors have agreed that the STAM Flight should/could occur. - If required, the STAM Flight may also be forced by the Initiator to Abandoned state at this stage. For Implementation - This state follows Coordinated state either immediately when the corresponding STAM is already in For Implementation state, or following some time. The state is needed only in the latter case where the STAM is coordinated and remains dormant - its implementation delayed. - When the Initiator person decides the STAM is really needed the STAM is moved from Coordinated to For Implementation state and the job of implementation can begin. The logic is that the implementation should be done and signalled back to the Initiator before the implementation time limit - see below. - The alternative may be that a coordinated STAM is not implemented because the associated hotspot is solved in some other way. In such case the STAM is forced by the Initiator to Abandoned state. Implemented - The actor who should implement the STAM has agreed to implement it at the relevant time - that is at or before the implementation time limit. - Implemented may mean that an action will be taken, for example an ATCO may do something when the flight appears, or implemented may mean that the action has already been taken, for example the aircraft operator may have submitted a change to his flight plan. Whenever possible, the switch to Implemented state is automated by the system, but some manual intervention might be required (ex: implemented by ATCO and not known to the NM systems). - The Implemented state is of most interest when considering the implementation time limit. Abandoned - The STAM will not occur. - A Boolean is attached to indicate if the STAM was forced to abandoned by a manual user action or if it was automatically forced to abandoned by the system (i.e. auto-abandoned). Interrupted (See Measure M-CDM Rules) Finished (See Measure M-CDM Rules)
Category	<Design>

Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3504.0008
Requirement	A measure shall concern a user if the user is - the initiator - the designated implementer - designated as an approver - designated as “for information only”
Title	
Status	<Deleted>
Rationale	This is a measures related business rule SUPERCEDED
Category	<Design>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3504.0010
Requirement	Depending on the current measure state the system shall accept the next deadline time as follows - DRAFT, PROPOSED => time to coordinate by - COORDINATED => time to start implementation by - FOR_IMPLEMENTATION => time to implement by - IMPLEMENTED, ABANDONED, FINISHED => N/A
Title	
Status	<Deleted>
Rationale	This is a measures related business rule SUPERCEDED
Category	<Design>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3504.0011

Requirement	The system shall permit the following measure state changes, by the defined user: - initiator : DRAFT => ABANDONED, PROPOSED - initiator: PROPOSED => ABANDONED, DRAFT, COORDINATED, DRAFT, - initiator : COORDINATED=> ABANDONED, DRAFT, PROPOSED, FOR_IMPL, - implementer (can be the initiator) : FOR_IMPL => ABANDONED, IMPLEMENTED, COORDINATED - implementer (can be the initiator): IMPLEMENTED => ABANDONED, FINISHED, FOR IMPLEMENTATION
Title	
Status	<Deleted>
Rationale	The permitted state changes are typically of the form StateN => StateN-1 (to correct an error), StateN+1, ABANDONED. SUPERCEDED
Category	<Design>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3504.0012
Requirement	Based on the current measure state, the system shall expect the next expected state to be as follows: - DRAFT => PROPOSED - PROPOSED => COORDINATED - COORDINATED => FOR_IMPLEMENTATION - FOR IMPLEMENTATION => IMPLEMENTED - IMPLEMENTED => FINISHED
Title	
Status	<Deleted>
Rationale	This is a measures related business rule SUPERCEDED
Category	<Design>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3504.0013
Requirement	Based on the current measure state, the system shall use the the next expected activity (for an allocated user).
Title	
Status	<Deleted>

Rationale	This has already been described in the Task Reminder Screen The concept of next-expected-activity is used in the application to guide the user in his/her workflow. Note: it is assumed the M-CDM state is automatically moved to FINISHED by the system as soon as the Hotspot ends. SUPERCEDED
Category	<Design>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3504.0014
Requirement	The system shall consider a measure as Incoming for a given user, if the user is concerned but not the initiator.
Title	
Status	<Deleted>
Rationale	This is a measures related business rule SUPERCEDED
Category	<Design>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3504.0015
Requirement	The system shall consider a measure as Outgoing for a given user, if the user is concerned and the initiator
Title	
Status	<Deleted>
Rationale	This is a measures related business rule SUPERCEDED
Category	<Design>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3504.0016

Requirement	The system shall identify the list of pre-defined M-CDM User Categories based on identified potential ATFCM actors for required coordination and collaboration exchanges.
Title	
Status	<Deleted>
Rationale	When associated to M-CDM Role and M-CDM Level, this allows automating the role assignment to individual users based on measure and flight details. The possible M-CDM User Categories are: - Adjacent FMP - All FMP - Tower - AO - NMOC - Initiator (i.e. to be able to assign the for implementation role to the initiator of the measure) SUPERCEDED
Category	<Design>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3504.0017
Requirement	The system shall identify the list of pre-defined M-CDM Levels based on identified possible level of details for required coordination and collaboration exchanges.
Title	
Status	<Deleted>
Rationale	When associated to M-CDM User Category and M-CDM Role, this allows automating the role assignment to individual users at the required level of details. When associated to an individual user, this allows automating the generation and the follow-up of M-CDM topic exchanges at the required level of details. The possible M-CDM Levels are: - Flight - Measure SUPERCEDED
Category	<Design>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3504.0018

Requirement	The system shall identify the list of pre-defined M-CDM Roles based on identified possible responsibilities in the required coordination and collaboration exchanges.
Title	
Status	<Deleted>
Rationale	When associated to M-CDM User Category and M-CDM Level, this allows automating the role assignment to individual users at the required level of details. When associated to an individual user, this allows customising the M-CDM process to identified actors (topic distribution, action management …). The possible M-CDM Roles are: - Not involved - For information - For approval - For implementation SUPERCEDED
Category	<Design>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3504.0019
Requirement	The system shall allow the following possible M-CDM approval states: - Unknown - default state, no response has been given by the actor - Standby - actor acknowledges the request and starts thinking about the response - Approve - actor approves the measure - Reject - actor disapproves the measure - Abandoned - actor approved but measure and/or flight M-CDM state changed to abandoned such that the actor is no longer concerned
Title	
Status	<Deleted>
Rationale	The M-CDM approval state is qualifying the maturity of an approval action identified by the M-CDM process based on the M-CDM role of an M-CDM actor. SUPERCEDED
Category	<Design>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3504.0020

Requirement	The system shall allow the following possible reference location types for a rerouting measure: - None (No reference location used i.e. user selects some flights) - Point - Aerodrome - Aerodrome Set - Airspace - Segment - Traffic Volume - CF restriction - RAD restriction - AC restriction - DCT restriction - SC restriction - All Flights - Delay location - Aircraft Operator
Title	
Status	<Deleted>
Rationale	The measure editor should be able to display all types of location. SUPERCEDED
Category	<Design>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3504.0021
Requirement	The system shall only permit valid state transitions, with general principles applying: - Interruption can occur at any time - Abandon can occur at almost any time (but for measures can be triggered only from the Measure Editor) - Most state transitions are triggered manually - For the most manual state transitions, an undo is permitted.
Title	
Status	<Deleted>

Rationale	The following table shows the possible states following any other. Current State = Next possible state for the topic = Applicable to: = Draft = Measure/Flight Draft = Abandoned, Proposed = Measure/Flight Proposed = Interrupted, Abandoned, Coordinated, Draft = Measure/Flight Coordinated = Interrupted, Abandoned, For_Implementation, Proposed, Draft = Measure/Flight For_Implementation = Interrupted, Abandoned, Implemented, Coordinated = Measure/Flight Implemented = Interrupted, Finished, Abandoned, For_Implementation = Measure/Flight Finished = = Measure/Flight Abandoned = = Measure/Flight Interrupted = Abandoned, Draft, Proposed, Coordinated, For implementation, Implemented = Measure/Flight SUPERCEDED
Category	<Design>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3504.0022
Requirement	The system shall store transient information during all non linear state transition
Title	
Status	<Deleted>

Rationale	SUPERCEDED When the state transition is not progressing linearly (from N state to N+1) the following principles apply: At Measure level From "Any State" to "ABANDONED" >> All the M-CDM information (Actors, Roles, Votes, Deadlines and other Measure parameters) will be kept in the log, but then, they cannot not be edited anymore because Abandoned is a final state. The Flight States contained in the measure are all pushed to ABANDONED regardless of their actual situation, however, if one or more of these flights was in IMPLEMENTED State, the behaviour at the flight level will depend on the kind of measure applied as follows - Flight "IMPLEMENTED" in Delay Measure >> Automatic SLC message is sent to actor(s) - Flight "IMPLEMENTED" in Rerouting Measure >> FMP and AO will discuss what to do (e.g. whether to re-file another flight plan or not) The system will always warn the user when he wants to push to Abandoned a measure that contains flights in Implemented state. For every flight from implemented to Abandoned a system message will be generated. From "Proposed " to "DRAFT" >> All the M-CDM info will be kept, including the results of the votes. From "Coordinated" to "DRAFT" >> All the M-CDM info will be kept, including the results of the votes. If the Measure is pushed back to Proposed the FMP will decide whether to reset the votes or not. If the Measure from Draft is pushed back to Coordinated we suppose that the FMP decided that the votes have not impact on the changes he applied to the measure. Flight Level - From "Draft, Proposed, Coordinated" to "INTERRUPTED" >> All the M-CDM info will be kept, including the result of the vote. If the Flight moves back to Proposed the FMP will decide whether to reset the vote or not. - From "Any State" to "ABANDONED" >> All the M-CDM info will be kept but Actor(s) and role(s) are cleaned from the Measure if the Measure is still active. - From "Implemented to "INTERRUPTED" >> M-CDM info are kept and according to the kind of measure a corrective action has to take place for the flight as described above at Measure Level, bullet a) This is a bit tricky case and we don't know if in reality it's going to happen. If we have a flight in Implemented State normally that implementation should move the flight outside the Hotspot (so Interrupted shouldn't be possible). However, a case exists where we've the flight Implemented, it's still in the Hotspot but in a safe and acceptable way (for example because the Hotspot has been defined for a period longer than needed) and then for other external reason (e.g. cancellation) the flight disappears from the Hotspot.
Category	<Design>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3505.0001

Requirement	The response time for Function:Display measure in the measure elaboration space shall be FAST
Title	
Status	<Deleted>
Rationale	This is a performance requirement SUPERCEDED
Category	<Performance>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3505.0002
Requirement	The response time for Function:Create measure in the measure elaboration space shall be FAST to MEDIUM
Title	
Status	<Deleted>
Rationale	This is a performance requirement SUPERCEDED
Category	<Performance>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-3505.0003
Requirement	The response time for Function:Update measure in the measure elaboration space shall be FAST to MEDIUM
Title	
Status	<Deleted>
Rationale	This is a performance requirement SUPERCEDED
Category	<Performance>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-7802.0000

Requirement	The TTO_Fix contains the following information:- <Affected_by>Regulation_Id - <Most_Penalising>Status_Yes_No (Flag to indicate if this regulation is the most penalizing regulation)- The TTO_Fix location identification (aerodrome id, point id or a geographical position)- <Target_Time_Over> Time (TTO)- <TTO_Fix>Flight_Level- <Actual_Time_Target> Time (ATT)- TTO compliance (ATT is before, inside of after the tolerance window period around the TTO)
Title	BR.ETFMS.DATA.FLIGHT.TTO.001.2
Status	<Deleted>
Rationale	Data model supports operational and technical needs. Superceded
Category	<Design>
Validation Method	
Verification Method	<Inspection>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-7803.0000
Requirement	A TTO_Fix_List is computed for a regulated flight: 0 <[<Most_penalizing> | Affected_by_Others]> TTO_Fix n
Title	BR.ETFMS.DATA.FLIGHT.TTO.001.3
Status	<Deleted>
Rationale	Any flight may be impacted by any number of regulations - zero, one, many. At each regulation the flight will have an entry time and place. Thus for each flight there is a list of targets containing zero, one or many. Following the focus in the OSED on the single regulation case, the target associated with the most penalising regulation is of most interest. Superceded
Category	<Design>
Validation Method	
Verification Method	<Inspection>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-7805.0000
Requirement	The TTO_Tolerance period around the TTO shall be used to compute the ATT compliance against the TTO.
Title	BR.ETFMS.PARAM.FLIGHT.TTO.001.1
Status	<Deleted>
Rationale	Default value for the TTO_Tolerance is the period between TTO - 3 minutes and TTO + 3 minutes. This is a system parameter that reflects the expected behaviour of the flights Superceded
Category	<Design>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-7806.0000
Requirement	When no TTO_Fix is available, ATT compliance is not computed.
Title	BR.ETFMS.PARAM.FLIGHT.TTO.001.2
Status	<Deleted>
Rationale	Completeness of requirements Superceded
Category	<Design>
Validation Method	
Verification Method	<Inspection>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-7807.0000
Requirement	The TTO_Max_Distance is the maximum acceptable distance between the reference location of an “en route” regulation and the closest “en route” point next to the entry in the regulated location.
Title	BR.ETFMS.PARAM.FLIGHT.TTO.002.1
Status	<Deleted>
Rationale	The user would rather not deal with a lat-long and prefers a named point for the fix. The default value for TTO_Max_Distance parameter is 60 NM. Superceded
Category	<Design>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-7808.0000
Requirement	When the computed distance is above TTO_Max_Distance, no TTO_Fix is defined for the regulation.
Title	BR.ETFMS.PARAM.FLIGHT.TTO.002.2
Status	<Deleted>
Rationale	The user would rather not deal with a lat-long and prefers a named point for the fix. Superceded
Category	<Design>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-7810.0000
Requirement	When a deviation occurs for a flight (CTFM model), the ETFMS system shall also compute the TTO_Fix information for each affecting regulation, check the actual time at target compliance against the TTO_Fix then log this information in the “New Prediction” operational log.
Title	BR.ETFMS.LOG.FLIGHT.TTO.001
Status	<Deleted>
Rationale	CTFM - The Current Tactical Flight Model - is updated with position reports of flights. Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-7812.0000
Requirement	The TTO_Fix information shall be computed when a RTFM model exists for the flight. It means that even if the regulation is cancelled but the RTFM model still exists (flight is airborne or supposed to be or adjusted to the clock).
Title	BR.ETFMS.COMPUTE.FLIGHT.TTO.001.9
Status	<Deleted>
Rationale	Further explanation of algorithm for calculating Target Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-7815.0000
Requirement	During execution phase and when a new prediction is logged in the ETFMS system, the list of TTO_Fix data shall be appended in a csv format at the end of the ”New Prediction” operational log.
Title	BR.ETFMS.DEVIATION.ETACT.TTO.001.5
Status	<Deleted>
Rationale	for example LSGG11;TRUE;EBOTO;1998/11/11 11:03:45; 202;1998/11/11 11:05:55;Inside; LSAG11;FALSE;LSA;1998/11/11 10:50:07; 290;1998/11/11 10:52:17;Inside; Superceded

Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-7817.0000
Requirement	The TTO_Fix information shall also be shown in the NOP-Portal flight details near the most penalizing regulation.
Title	BR.ETFMS.REMOTE.FLIGHT.TTO.001.3
Status	<Deleted>
Rationale	Extends REQ-13.02.03-TS78-00016.0000 for ease of use Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-7819.0000
Requirement	Only the new prediction logging shall be appended with the list of TTO_Fix and ATT for the flight. See REQ-13.02.03-TS78-00015.0000
Title	BR.DWH.LOG.FLIGHT.001.2
Status	<Deleted>
Rationale	This extension to this operational log should not impact the DWH except in the worst case to skip the additional lines. Superceded
Category	<Interface>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-7820.0000
Requirement	The new TTO_Fix data shall be shown in the flight data display (ETFMS HMI, NOP) during SESAR trials. When the trial is not active, it must be possible to hide the TTO_Fix data.
Title	BR.ETFMS.DISPLAY.FLIGHT.TTO.001.1
Status	<Deleted>
Rationale	The system is being embedded in the operational system. But this feature is experimental and not supported by operational staff / processes / documentation.

Category	<Design>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-7821.0000
Requirement	In the ETFMS HMI flight data display, near each affecting regulation (most penalising and regulations for which the CTO is inside the regulation period), all TTO_Fix attributes shall be shown (Identification, time over, flight level, ATT and compliance information).
Title	BR.ETFMS.DISPLAY.FLIGHT.TTO.002
Status	<Deleted>
Rationale	ETFMS HMI is the “window of the soul” for NM systems and is used for testing. The feature will also be useful to allow NMOC to support activities. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-7822.0000
Requirement	A new optional column in the ETFMS HMI flight list shall show the TTO_Fix information linked to the most penalising regulation, when available. As the purpose of this optional column is to show the TTO compliance, the difference between the ATT and TTO shall be shown in this column.
Title	BR.ETFMS.LIST.FLIGHT.TTO.001.3
Status	<Deleted>
Rationale	Performance monitoring.Note that when the CTFM model is not crossing the most penalising regulation the Actual Time at Target and the TTO compliance are not available. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-7823.0000

Requirement	The system shall operate such that a software switch must be enabled in order to display the TTO_Fix information in the ETFMS flight data display. This switch shall be local to a workstation and shall not require restarting the MMI process (session or tacot process). Only “kicking” the running MMI process shall be necessary to inform the MMI that the TTO_Fix information must be shown or not.In order to enable this software switch during the SESAR trial, CSO/OSM must activate the switch QUERY_DISPLAY.FLIGHT_DATA.SHOW_TTO_FIX_INFO.
Title	BR.ETFMS.AUTHORIZE.FLIGHT.001
Status	<Deleted>
Rationale	Implements REQ-13.02.03-TS78-00020.0000 for ETFMS HMITacot - an environment for testing ETFMS.Kicking - a mechanism to get ETFMS to re-read a configuration file while running.MMI process - provides the HMI. CSO/OSM = the team that configures operational systems inside NM, among other duties. Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-7825.0000
Requirement	In the NOP-Portal, the TTO_Fix shall be displayed in an optional column. On the NOP-Portal, the display of the optional column (TTO_Fix data) shall be authorised by user profile.
Title	BR.ETFMS.DISPLAY.FLIGHT.TTO.003.7
Status	<Deleted>
Rationale	Implements REQ-13.02.03-TS78-00020.0000 for NOP-PortalNote the user connects to the NOP-Portal and chooses a user profile. For many users there is only one possible profile. Superceded
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-13.02.03-TS-7826.0000
Requirement	TTO information display format:A first optional column shall show the optional TTO_Fix information (a presence is defined in the ICD changes in order to support an empty TTO_Fix).• TTO_Fix location identification : PointId (fixed length of 5 char) • TTO_Fix Target_Time_Over : Time (HH:MM)• TTO_Fix Flight_Level : FlightLevel (3 numeric) Example : KEPER 09:55 330A second optional column shall show the optional ATT information (a presence is defined in the ICD changes in order to support an empty ATT information)• Actual_Time_Target : Time (HH:MM)• TTO compliance : Before => "/" Inside => " " After => "\" Example : 09:58\

Title	BR.ETFMS.DISPLAY.FLIGHT.TTO.003.8
Status	<Deleted>
Rationale	Completes REQ-13.02.03-TS78-00024.0000 and REQ-13.02.03-TS78-00022.0000A concise format is preferred. Superceded
Category	<HMI>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

[REQ]

Identifier	REQ-07.06.01-TS-AOP1.0600
Requirement	ETFMS shall be able to receive and process Runway configuration updates via B2B. ETFMS shall provide the ability to manage multiple active runways in pre-tactical and tactical phases. NOP shall display and provide B2B access to runway configuration plan.
Title	Runway Configuration Plan
Status	<Deleted>
Rationale	The NOP shall provide access to runway configuration plan information at any airport of the European ATM network from planning to execution. This includes period, designators (direction/position - L/C/R) of planned runways in use and also runway operating modes (Arrivals, departures or mixed mode) as well as the STARs/SIDs assignment to specific arrival/departure runways. On the D-1 or on the day of operations (short-term planning, execution) the updates to the runway in use and runway operating mode will be be also provided from AOP to NOP and updated in NOP. The runway configuration information permits the Network to anticipate on pre-planned Runway configuration changes (e.g. change from inbound to outbound priority mode runway availability - maintenance/inspection, noise abatement etc.) and to apply these changes to the 4D flight profile models. This will increase the accuracy of the profiles thta will be further improved upon reception of flight specific departure and arrival runway and SID/STAR on the D day -see REQ-07.06.01-OSED-AOP1.0050 and REQ-07.06.01-OSED-AOP1.0051. This is already implemented i OPS so no need to be validated by the system.
Category	<Functional>
Validation Method	
Verification Method	<Test>

[REQ Trace]

Relationship	Linked Element Type	Identifier	Compliance

4844 **-END OF DOCUMENT-**

4845

4846