

CP1		Active							APT	
FCM11.1		Initial AOP/NOP Information Sharing								
REG	ASP	MIL	APO	USE	INT	IND	NM	MET	AIS	USP

## Subject matter and scope

The AOP is a single, common and collaboratively agreed rolling plan available to all airport stakeholders whose purpose is to provide common situational awareness and to form the basis upon which stakeholder decisions relating to process optimization can be made. The AOP can be implemented in two steps: Initial AOP (iAOP) and Extended AOP, as described in objectives AOP11.1 and AOP11.2.

The collaborative NOP is the continuous data exchanges between the Network Manager and operational stakeholder systems in order to cover the entire flight trajectory lifecycle and to reflect priorities as required.

In order to improve the European ATM network performance, notably capacity and flight efficiency through exchange, modification and management of trajectory information there is a clear need for information sharing between the AOP and the NOP. The initial AOP/NOP integration is the technical data layer for the collaborative NOP information sharing.

The integration of AOP and NOP provides a rolling picture of the network and airport situation used by stakeholders to prepare and update their plans and their inputs to the network CDM processes, with a focus on the availability of shared operational planning and real-time data.

The iAOP/NOP integration focuses on exchanging between Airports/Airports Operational stakeholders' systems and NM systems the Arrival Planning Information (API) and Departure Planning Information (DPI) messages; those messages are an add-on to DPI messages currently provided by CDM Airports. The procedures to generate those messages and their detailed contents have to be defined in collaboration between the NM and the implementing stakeholders. NM has an implementation work plan with Airports in CEF projects for deployment of the Family.

Stakeholders also impacted are all the other involved airports stakeholders such as but not limited to:

- Aircraft operators
- Ground handlers
- De-icing handlers
- ANSPs
- MET services providers

System requirements:

- Network Manager systems shall handle arrival planning information and departure planning information from the iAOP via NM B2B services;
- In Airports, iAOP shall provide arrival and departure planning information to the NOP via NM B2B services. DPI messages might still be provided in ADEXP format until 2025, while P-DPI and API interfaces are available only via NM B2B services.
- Operational stakeholders' ground systems shall be adapted to directly interface with Network Manager systems via NM B2B services.
- Arrival and departure planning information for iAOP/NOP integration consists of the following mandatory messages:
  - o P-DPI;
  - o DPI used in CDM process;
  - o General-API;
  - o The other API messages (e.g. TTO, TTA) are considered for optional deployment in the iAOP/NOP integration.

**NOTE FOR MILITARY AUTHORITIES:** It is the responsibility of each military authority to review this Objective IN ITS ENTIRETY and address each of the SLoAs that the military authority considers RELEVANT for itself. This has to be done on top and above of the review of "MIL" SLoAs which identify actions EXCLUSIVE to military authorities.

## Applicability Area(s) & Timescale(s)

<b>Applicability Area 1</b> (CP1 airports)	See list of airports in MP Level 3 Implementation Plan - Annexes			
<b>Applicability Area 2 (non-CP1 Airports)</b> (Non-CP1 Airports)	See list of airports in MP Level 3 Implementation Plan - Annexes			
<b>Timescales:</b>	<b>From:</b>	<b>By:</b>	<b>Applicable to:</b>	
Initial Operational Capability	01/01/2021		Applicability Area 1 + Applicability Area 2 (non-CP1 Airports)	

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Full Operational Capability / Target Date		31/12/2023	Applicability Area 1 + Applicability Area 2 (non-CP1 Airports)
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References

European ATM Master Plan

Ol step -	<a href="#">[AO-0801-A]-Collaborative Airport Planning Interface</a>								
	Enablers -	AIRPORT-03 AOP11.1, AOP11.2	AIRPORT-31 AOP05	AIRPORT-38	AOC-ATM-13	HUM-007 AOP11.1, AOP11.2, FCM11.2	PRO-028	SWIM-APS-03a	SWIM-APS-04a
		SWIM-INFR-05a	SWIM-NET-01a						
Ol step -	<a href="#">[DCB-0103-A]-Initial collaborative NOP</a>								
	Enablers -	AIRPORT-38	METEO-06b	MIL-0502	NIMS-13b FCM04.2	NIMS-14b	NIMS-25	PRO-028	REG-0518
		SWIM-APS-01a	SWIM-APS-02a	SWIM-APS-03a	SWIM-APS-04a	SWIM-INFR-05a	SWIM-NET-01a		
Legend:	WXYZ-001	Covered by SLoA(s) in this objective		WXYZ-002 zzz	Covered by SLoA(s) in another objective Objective covering the enabler		WXYZ-003	Not covered in the Implementation Plan	

Applicable legislation

Regulation (EU) 2021/116 on the establishment of the Common Project One
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Essential Operational Changes

ATM Interconnected Network
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SESAR Solution

#20 - Collaborative NOP for Step 1, #21 - Airport Operations Plan and AOP-NOP Seamless Integration
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ICAO GANP - ASBUs

NOPS-B0/4	Initial Airport/ATFM slots and A-CDM Network Interface
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Deployment Programme

4.2.2	Initial AOP/NOP Information Sharing
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European Plan for Aviation Safety

- none -	
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Operating Environments

Airport
Network
Terminal Airspace

Stakeholder Lines of Action (SLoAs)

SloA ref.	Title	From	By
FCM11.1-ASP01	Arrival and Departure Plan Information implementation	01/01/2021	31/12/2023
FCM11.1-ASP02	Implement Network Manager B2B services	01/01/2021	31/12/2023
FCM11.1-ASP03	Data validation	01/01/2021	31/12/2023
FCM11.1-ASP04	Safety assessment	01/01/2021	31/12/2023
FCM11.1-ASP05	Training	01/01/2021	31/12/2023
FCM11.1-ASP06	Operational use	01/01/2021	31/12/2023
FCM11.1-APO01	Arrival and Departure Plan Information implementation	01/01/2021	31/12/2023
FCM11.1-APO02	Implement Network Manager B2B services	01/01/2021	31/12/2023

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<b>FCM11.1-APO03</b>	Data validation	01/01/2021	31/12/2023
<b>FCM11.1-APO04</b>	Safety assessment	01/01/2021	31/12/2023
<b>FCM11.1-APO05</b>	Training	01/01/2021	31/12/2023
<b>FCM11.1-APO06</b>	Operational use	01/01/2021	31/12/2023
<b>FCM11.1-NM01</b>	Develop API and DPI operational requirements	01/01/2021	31/12/2023
<b>FCM11.1-NM02</b>	Enhance the NM technical platform and services for Collaborative NOP	01/01/2021	31/12/2023
<b>FCM11.1-NM03</b>	Develop Network Manager B2B services	01/01/2021	31/12/2023
<b>FCM11.1-NM04</b>	Data validation	01/01/2021	31/12/2023
<b>FCM11.1-NM05</b>	Safety assessment	01/01/2021	31/12/2023
<b>FCM11.1-NM06</b>	Training	01/01/2021	31/12/2023
<b>FCM11.1-NM07</b>	Operational use	01/01/2021	31/12/2023

Description of finalised and deleted SLOAs is available on the eATM Portal @ [https://www.eatmportal.eu/working/depl/essip\\_objectives](https://www.eatmportal.eu/working/depl/essip_objectives)

### Expected Performance Benefits

<b>Safety:</b>	Enhanced safety.
<b>Capacity:</b>	Increased capacity. Improved airport resilience/limiting capacity reduction in degraded situations.
<b>Operational Efficiency:</b>	-
<b>Cost Efficiency:</b>	Enhanced predictability.
<b>Environment:</b>	-
<b>Security:</b>	-

### Detailed SLOA Descriptions

<b>FCM11.1-ASP01</b>	<b>Arrival and Departure Plan Information implementation</b>	<b>From:</b> 01/01/2021	<b>By:</b> 31/12/2023
<b>Action by:</b>	<b>ANS Providers</b>		
<b>Description &amp; purpose:</b>	ANSP in coordination with NM, AO and all relevant local implementing stakeholders have to coordinate on procedures and content related to the content of API and DPI messages. ANSP has to ensure collection and integration of data with all airport operational stakeholders, as necessary.		
	<b>Note :</b> This SLOA needs to be synchronised between ANSPs, AOs and NM		
<b>Supporting material(s):</b>	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : <a href="https://www.sesardeploymentmanager.eu/publications/deployment-programme">https://www.sesardeploymentmanager.eu/publications/deployment-programme</a>		
<b>ATM Master Plan relationship:</b>	<a href="#">[AIRPORT-38]-Airport/ATFCM Extended data interface</a> <a href="#">[PRO-028]-Procedures to support AOP-NOP collaborative process</a>		
<b>Finalisation criteria:</b>	1 - API and DPI content and procedures have been agreed and data for those messages has been integrated into the system.		
<b>FCM11.1-ASP02</b>	<b>Implement Network Manager B2B services</b>	<b>From:</b> 01/01/2021	<b>By:</b> 31/12/2023
<b>Action by:</b>	<b>ANS Providers</b>		
<b>Description &amp; purpose:</b>	ANSP technically implement in their local system the creation and exchange of API and DPI messages via NM B2B Services.		
	<b>Note :</b> This SLOA needs to be synchronised between ANSPs, AOs and NM		
<b>Supporting material(s):</b>	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : <a href="https://www.sesardeploymentmanager.eu/publications/deployment-programme">https://www.sesardeploymentmanager.eu/publications/deployment-programme</a>		
<b>Finalisation criteria:</b>	1 - NM B2B services have been implemented in the systems for iAOP/NOP data exchange.		
<b>FCM11.1-ASP03</b>	<b>Data validation</b>	<b>From:</b> 01/01/2021	<b>By:</b> 31/12/2023
<b>Action by:</b>	<b>ANS Providers</b>		
<b>Description &amp; purpose:</b>	ANSP in coordination with AO and NM ensure the validation of API and DPI data performing a process of systems testing of the data exchange.		
	<b>Note :</b> This SLOA needs to be synchronised between ANSPs, AOs and NM		
<b>Supporting material(s):</b>	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : <a href="https://www.sesardeploymentmanager.eu/publications/deployment-programme">https://www.sesardeploymentmanager.eu/publications/deployment-programme</a>		
<b>ATM Master Plan relationship:</b>	<a href="#">[AIRPORT-38]-Airport/ATFCM Extended data interface</a> <a href="#">[PRO-028]-Procedures to support AOP-NOP collaborative process</a>		
<b>Finalisation criteria:</b>	1 - Systems have been tested and validated.		

<b>FCM11.1</b>	<b>Initial AOP/NOP Information Sharing</b>		
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<b>FCM11.1-ASP04</b>	<b>Safety assessment</b>	<b>From:</b> 01/01/2021	<b>By:</b> 31/12/2023
<b>Action by:</b>	<b>ANS Providers</b>		
<b>Description &amp; purpose:</b>	The safety assessment of the changes must be developed and delivered to the competent authority.		
<b>Supporting material(s):</b>	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : <a href="https://www.sesardeploymentmanager.eu/publications/deployment-programme">https://www.sesardeploymentmanager.eu/publications/deployment-programme</a>		
<b>Finalisation criteria:</b>	1 - Safety assessment has been developed and delivered to the competent authority.		
<b>FCM11.1-ASP05</b>	<b>Training</b>	<b>From:</b> 01/01/2021	<b>By:</b> 31/12/2023
<b>Action by:</b>	<b>ANS Providers</b>		
<b>Description &amp; purpose:</b>	All relevant staff must be duly trained.		
<b>Supporting material(s):</b>	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : <a href="https://www.sesardeploymentmanager.eu/publications/deployment-programme">https://www.sesardeploymentmanager.eu/publications/deployment-programme</a>		
<b>Finalisation criteria:</b>	1 - Training has been completed.		
<b>FCM11.1-ASP06</b>	<b>Operational use</b>	<b>From:</b> 01/01/2021	<b>By:</b> 31/12/2023
<b>Action by:</b>	<b>ANS Providers</b>		
<b>Description &amp; purpose:</b>	Initial AOP/NOP Information Sharing is ready for operational use once the procedures are in place, the systems have been upgraded, the safety assessment has been delivered and approved, and the training has been completed.		
<b>Supporting material(s):</b>	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : <a href="https://www.sesardeploymentmanager.eu/publications/deployment-programme">https://www.sesardeploymentmanager.eu/publications/deployment-programme</a>		
<b>Finalisation criteria:</b>	1 - Initial AOP/NOP Information Sharing is put into service		
<b>FCM11.1-APO01</b>	<b>Arrival and Departure Plan Information implementation</b>	<b>From:</b> 01/01/2021	<b>By:</b> 31/12/2023
<b>Action by:</b>	<b>Airport Operators</b>		
<b>Description &amp; purpose:</b>	AO in coordination with NM, ANSP and all relevant local implementing stakeholders have to coordinate on procedures and content related to the content of API and DPI messages. AO has to ensure collection and integration of data with all airport operational stakeholders, as necessary.  <a href="#">Note :This SLoA needs to be synchronised between ANSPs, AOs and NM</a>		
<b>Supporting material(s):</b>	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : <a href="https://www.sesardeploymentmanager.eu/publications/deployment-programme">https://www.sesardeploymentmanager.eu/publications/deployment-programme</a>		
<b>ATM Master Plan relationship:</b>	<a href="#">[AIRPORT-38]-Airport/ATFCM Extended data interface</a> <a href="#">[PRO-028]-Procedures to support AOP-NOP collaborative process</a>		
<b>Finalisation criteria:</b>	1 - API and DPI content and procedures have been agreed and data for those messages has been integrated into the system.		
<b>FCM11.1-APO02</b>	<b>Implement Network Manager B2B services</b>	<b>From:</b> 01/01/2021	<b>By:</b> 31/12/2023
<b>Action by:</b>	<b>Airport Operators</b>		
<b>Description &amp; purpose:</b>	AO technically implement in their local system the creation and exchange of API and DPI messages via NM B2B Services.  <a href="#">Note :This SLoA needs to be synchronised between ANSPs, AOs and NM</a>		
<b>Supporting material(s):</b>	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : <a href="https://www.sesardeploymentmanager.eu/publications/deployment-programme">https://www.sesardeploymentmanager.eu/publications/deployment-programme</a>		
<b>Finalisation criteria:</b>	1 - NM B2B services have been implemented in the systems for iAOP/NOP data exchange		
<b>FCM11.1-APO03</b>	<b>Data validation</b>	<b>From:</b> 01/01/2021	<b>By:</b> 31/12/2023
<b>Action by:</b>	<b>Airport Operators</b>		
<b>Description &amp; purpose:</b>	AO in coordination with ANSP and NM ensure the validation of API and DPI data performing a process of systems testing of the data exchange.  <a href="#">Note :This SLoA needs to be synchronised between ANSPs, AOs and NM</a>		
<b>Supporting material(s):</b>	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : <a href="https://www.sesardeploymentmanager.eu/publications/deployment-programme">https://www.sesardeploymentmanager.eu/publications/deployment-programme</a>		
<b>ATM Master Plan relationship:</b>	<a href="#">[AIRPORT-38]-Airport/ATFCM Extended data interface</a> <a href="#">[PRO-028]-Procedures to support AOP-NOP collaborative process</a>		
<b>Finalisation criteria:</b>	1 - Systems have been tested and validated		

FCM11.1		Initial AOP/NOP Information Sharing	
FCM11.1-APO04	Safety assessment	From: 01/01/2021	By: 31/12/2023
Action by:	Airport Operators		
Description & purpose:	The safety assessment of the changes must be developed and delivered to the competent authority.		
Supporting material(s):	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : <a href="https://www.sesardeploymentmanager.eu/publications/deployment-programme">https://www.sesardeploymentmanager.eu/publications/deployment-programme</a>		
Finalisation criteria:	1 - Safety assessment has been developed and delivered to the competent authority.		
FCM11.1-APO05	Training	From: 01/01/2021	By: 31/12/2023
Action by:	Airport Operators		
Description & purpose:	All relevant staff must be duly trained.		
Supporting material(s):	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : <a href="https://www.sesardeploymentmanager.eu/publications/deployment-programme">https://www.sesardeploymentmanager.eu/publications/deployment-programme</a>		
Finalisation criteria:	1 - Training has been completed.		
FCM11.1-APO06	Operational use	From: 01/01/2021	By: 31/12/2023
Action by:	Airport Operators		
Description & purpose:	Initial AOP/NOP Information Sharing is ready for operational use once the procedures are in place, the systems have been upgraded, the safety assessment has been delivered and approved, and the training has been completed.		
Supporting material(s):	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : <a href="https://www.sesardeploymentmanager.eu/publications/deployment-programme">https://www.sesardeploymentmanager.eu/publications/deployment-programme</a>		
Finalisation criteria:	1 - Initial AOP/NOP Information Sharing is put into service.		
FCM11.1-NM01	Develop API and DPI operational requirements	From: 01/01/2021	By: 31/12/2023
Action by:	NM		
Description & purpose:	In the context of CDM process, NM in coordination with Airport operational stakeholders develops the requirements for API and DPI messages  <i>Note :This SLoA needs to be synchronised between ANSPs, AOs and NM</i>		
Supporting material(s):	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : <a href="https://www.sesardeploymentmanager.eu/publications/deployment-programme">https://www.sesardeploymentmanager.eu/publications/deployment-programme</a>		
ATM Master Plan relationship:	<a href="#">[PRO-028]-Procedures to support AOP-NOP collaborative process</a>		
Finalisation criteria:	1 - API and DPI messages requirements have been agreed and developed.		
FCM11.1-NM02	Enhance the NM technical platform and services for Collaborative NOP	From: 01/01/2021	By: 31/12/2023
Action by:			
Description & purpose:	NM has to develop API and DPI messages and provide improvements upgrades in subsequent NM software releases to incorporate this data into NM services. NM supports also the needs in terms of user interfaces and additional data needs from other objectives (e.g. iAOP data) in the context of Collaborative NOP.  <i>Note :This SLoA needs to be synchronised between ANSPs, AOs and NM</i>		
Supporting material(s):	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : <a href="https://www.sesardeploymentmanager.eu/publications/deployment-programme">https://www.sesardeploymentmanager.eu/publications/deployment-programme</a>		
ATM Master Plan relationship:	<a href="#">[PRO-028]-Procedures to support AOP-NOP collaborative process</a>		
Finalisation criteria:	1 - API and DPI are ready to be integrated into the NM systems.		
FCM11.1-NM03	Develop Network Manager B2B services	From: 01/01/2021	By: 31/12/2023
Action by:	NM		
Description & purpose:	Development and implementation of NM B2B Services in support of the information exchanges required by this objective.  <i>Note :This SLoA needs to be synchronised between ANSPs, AOs and NM</i>		
Supporting material(s):	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : <a href="https://www.sesardeploymentmanager.eu/publications/deployment-programme">https://www.sesardeploymentmanager.eu/publications/deployment-programme</a>		
Finalisation criteria:	1 - NM B2B services have been implemented in the systems for iAOP/NOP data exchange.		
FCM11.1-NM04	Data validation	From:	By:

FCM11.1		Initial AOP/NOP Information Sharing	
		01/01/2021	31/12/2023
<b>Action by:</b>	<b>NM</b>		
<b>Description &amp; purpose:</b>	NM ensures the validation of API and DPI data performing a process of systems testing of the data exchange.		
	<a href="#">Note :This SLoA needs to be synchronised between ANSPs, AOs and NM</a>		
<b>Supporting material(s):</b>	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : <a href="https://www.sesardeploymentmanager.eu/publications/deployment-programme">https://www.sesardeploymentmanager.eu/publications/deployment-programme</a>		
<b>ATM Master Plan relationship:</b>	<a href="#">[PRO-028]-Procedures to support AOP-NOP collaborative process</a>		
<b>Finalisation criteria:</b>	1 - Systems have been tested and validated		
<b>FCM11.1-NM05</b>	<b>Safety assessment</b>	<b>From:</b> 01/01/2021	<b>By:</b> 31/12/2023
<b>Action by:</b>	<b>NM</b>		
<b>Description &amp; purpose:</b>	The safety assessment of the changes must be developed and delivered to the competent authority.		
<b>Supporting material(s):</b>	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : <a href="https://www.sesardeploymentmanager.eu/publications/deployment-programme">https://www.sesardeploymentmanager.eu/publications/deployment-programme</a>		
<b>Finalisation criteria:</b>	1 - Safety assessment has been developed and delivered to the competent authority.		
<b>FCM11.1-NM06</b>	<b>Training</b>	<b>From:</b> 01/01/2021	<b>By:</b> 31/12/2023
<b>Action by:</b>	<b>NM</b>		
<b>Description &amp; purpose:</b>	All relevant staff must be duly trained.		
<b>Supporting material(s):</b>	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : <a href="https://www.sesardeploymentmanager.eu/publications/deployment-programme">https://www.sesardeploymentmanager.eu/publications/deployment-programme</a>		
<b>Finalisation criteria:</b>	1 - Training has been completed.		
<b>FCM11.1-NM07</b>	<b>Operational use</b>	<b>From:</b> 01/01/2021	<b>By:</b> 31/12/2023
<b>Action by:</b>	<b>NM</b>		
<b>Description &amp; purpose:</b>	Initial AOP/NOP Information Sharing is ready for operational use once the procedures are in place, the systems have been upgraded, the safety assessment has been delivered and approved, and the training has been completed.		
<b>Supporting material(s):</b>	SDM - Standardisation and Regulation support to CP1 deployment 2021, Deliverable D1.1.1 07/2021 Url : <a href="https://www.sesardeploymentmanager.eu/publications/deployment-programme">https://www.sesardeploymentmanager.eu/publications/deployment-programme</a>		
<b>Finalisation criteria:</b>	1 - Initial AOP/NOP Information Sharing is put into service.		

