

Deployment Scenario Title	Collaborative network performance management
Deployment Scenario Description	Collaborative network performance management: this aims to provide a common framework and toolbox for the other solutions and actors, making it possible to assess network performance in the pre-tactical and tactical phases of network management. It will involve developing transparent and shareable network performance indicators, and network state monitoring and prediction tools. This will support the Network Manager operations centre (NMOC) through greater supervision and awareness, as well as network performance "what-if and what-else" capabilities.
Essential Operational Change	ATM Interconnected Network
Maturity	In development phase: Key R&D Activities

Applicable Operating Environment			
Airport	Terminal Airspace	En-Route	Network

Timeline																					
2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035

Performance Contribution of the DS				
Capacity	Safety	Environment	Cost-efficiency	Operational efficiency

Stakeholders affected (at least one enabler to be deployed)						
ANSP		AO		AU		Network Manager
Civil	Military	Civil	Military	Civil	Military	
TWR, APP, ENR	APP, ENR	APT Operator	APT Operator	Scheduled, BA Fixed, BA Rotorcraft, GA, FOC	WOC	Network Manager

SESAR Solutions			
Solution Code	Solution Title	Solution Description	Related Elements
PJ.09-03	Collaborative Network Management Functions	Collaborative Network Management Functions allow for network management based on transparency,...	SOL PJ OI DS EOC
PJ.09-W2-49	Collaborative Network Performance Management	The key R&D activity aims at providing a common framework and toolbox to the other solutions...	PJ DS EOC

Operational Improvement Steps			
OI Step Code	OI Step Title	OI Step Description	Related Elements
AUO-0108	Most Penalizing Delay based on reconciliation between DCB and Airport CDM	Reconciling DCB measures with Airport requires that A-CDM Most penalising delays are taken into...	SOL EN DS
DCB-0103-B	Collaborative NOP	The NOP is developed as one continuum from planning to execution, providing common awareness on...	SOL OI EN DS
DCB-0214	DCB What-if Network Impact Assessment	Network impact assessment relies on What-If capability to support decision making processes in...	SOL EN DS
DCB-0215	Consolidation of imbalances and arbitration of Trajectory Management solutions	Measures from Airports (including Multi-APOC), ACCs, AUs and NM will be integrated and...	SOL EN DS
DCB-0217	DCB Support to FF-ICE	NOP will be enriched to provide the evolving DCB information to AUs (network DCB constraints,...	SOL EN DS

Enablers						
Required/Optional	New/Inherited	Develop/Use	Enabler Code	Enabler Title	Enabler Description	Related Elements
→			AOC-ATM-10	Modification of AOC/WOC-ATM trajectory management system (or new systems) to allow quality of service requested by NOP for pre-flight trajectory with dynamic routing	Taking into account a dynamic management of airspace (free-routing mixed with routing depending...	STK OI DS PCP
🔒			AOC-ATM-11	LOAs Integration in FOC trajectories	Modification of FOC functions to automatically integrate the updated ATC LOA status in pre-flight...	STK OI EN DS PCP
🔒			AOC-ATM-13	Participating of the FOC/ WOC in the airport triggered CDM process	Enables the FOC/ WOC to participate in the CDM process triggered by an airport. That includes...	STK OI EN DS PCP
🔒			AOC-ATM-20	Sharing of trajectory data between AOC/WOC and the ATM world using B2B web services	Following data communication will be managed using B2B web services: Trajectory related data...	STK OI EN DS PCP
🔒			FOC-006	FOC flight lifecycle monitoring and situational awareness capabilities	Extension of the capabilities of the FOC in regard to the monitoring and assessment of...	STK OI DS
🔒			FOC-009	Improved trajectory planning through consideration of ground operation milestones and actual taxi time.	This enabler will allow AU/FOC to receive info via NM services in respect of ground operations...	STK OI DS
🔒			NIMS-12	Demand Capacity Balancing equipped with a tool to identify and arbitrate multiple imbalance and hotspots	Develop an assistance tool allowing the Network Manager, the civil ATS Providers and the civil...	STK OI DS
→			NIMS-13c	Full regional support of dDCB	Automated CDM STAM process and information sharing including Network Supervision in support of...	STK OI DS
→			NIMS-21b	Flight Planning extended with eFPL Distribution service	Modification of the Regional ATFCM flight plan distribution service for eFPL via...	STK OI EN DS

Enablers						
Required/Optional	New/Inherited	Develop/Use	Enabler Code	Enabler Title	Enabler Description	Related Elements
🔒			NIMS-22	Enhanced performance management sub-system	Performance management sub-system equipped with post-analysis tools for analysing the efficiency...	STK OI DS
🔒			NIMS-23	Capacity planning and scenario management equipped with tools integrating SB/MT information, to assist ATS in optimising the use of airport and airspace usable capacity	Tools that provide functionality for simulating, evaluating the balance between demand and...	STK OI DS
🔒			NIMS-25	Integration of Airport CDM data into Network DCB sub-system	"Network DCB sub-system enhanced to interact with Airport Operators for CDM, to better coordinate...	STK OI DS PCP
🔒			NIMS-46	Integrated local DCB working position	Integrated local DCB working position with improved situation awareness need to be developed for...	STK OI DS
🔒			NIMS-49	Multiple Constraint Resolver	NM system functionality will be enhanced for the consolidation of multiple conflicting...	STK OI DS
🔒			NIMS-52	Enhancement of ETFMS for including airport constraints	This Enabler is for enhancement of European traffic flow management system (e.g. ETFMS) to...	STK OI DS
🔒			PRO-095	Airline Operational Procedures for modifying RBT/ATV including agreed TTA to accommodate selected priorities	Airline Operational Procedures for modifying RBT/ATV including agreed TTA to accommodate selected...	STK OI DS
🔒			PRO-096	Airline Operational Procedures for modifying SBT/ATV including agreed TTA to accommodate selected priorities	Airline Operational Procedures for changes to SBT/ATV in order to accommodate collaboratively...	STK OI DS
🔒			PRO-098	FCM Procedures for optimising network usage and identifying opportunities for traffic smoothing	FCM Procedures for utilising opportunities to apply traffic smoothing techniques (particularly...	OI DS
➔			PRO-100	FCM procedures to allocate, monitor and update 4D targets for ATFCM purposes	FCM Procedures are developed in collaboration with the ANSP to enable allocation and monitoring...	STK OI DS
➔			SWIM-APS-03b	Provision of ASM-ATFCM Information Services for Step 2	Wide area communications services for collecting, disseminating and negotiating demand and...	OI EN DS S
🔒			SWIM-APS-04b	Consumption of G/G and initial A/G ASM-ATFCM Information Services on Wide Area communications	Wide area communications services for collecting, disseminating and negotiating demand and...	OI DS S
➔			ER APP ATC 82	Enhance EN/APP ACC to use eFPL data	Modification of the EN APP ATC functions in order to use eFPL data for the trajectory prediction.	STK OI EN DS

