

<b>Deployment Scenario Title</b>	Enhanced network traffic prediction and shared complexity representation
<b>Deployment Scenario Description</b>	Enhanced network traffic prediction and shared complexity representation: the objective is to improve the accuracy of the Network Manager's traffic predictions from the medium-term planning phase (2 days before operations) to execution, relying in particular on new trajectory management features such as the preliminary flight plan. The Solution will adapt existing methodologies and algorithms for demand prediction and regional complexity assessment.
<b>Essential Operational Change</b>	ATM Interconnected Network
<b>Maturity</b>	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	
MET	MET			FOC	WOC	Network Manager

SESAR Solutions			
Solution Code	Solution Title	Solution Description	Related Elements
PJ.09-01	Network Prediction and Performance	Network Prediction and Performance relies on shared situational awareness with respect to demand,...	<span style="background-color: #d9534f; color: white; padding: 2px;">SOL</span> <span style="background-color: #d9534f; color: white; padding: 2px;">PJ</span> <span style="background-color: #d9534f; color: white; padding: 2px;">OI</span> <span style="background-color: #d9534f; color: white; padding: 2px;">DS</span> <span style="background-color: #7ed321; color: white; padding: 2px;">EOC</span> <span style="background-color: #337ab7; color: white; padding: 2px;">ICAO</span>
PJ.09-W2-45	Enhanced Network Traffic Prediction and shared complexity representation	The key R&D activity aims at improving the accuracy of the network manager traffic prediction...	<span style="background-color: #d9534f; color: white; padding: 2px;">PJ</span> <span style="background-color: #d9534f; color: white; padding: 2px;">DS</span> <span style="background-color: #7ed321; color: white; padding: 2px;">EOC</span>

Operational Improvement Steps			
OI Step Code	OI Step Title	OI Step Description	Related Elements
CM-0103-B	Automated Support for Traffic Complexity Assessment	Automated tools adapted to trajectory based operations (planning and execution): including user...	SOL OI EN DS
DCB-0211	Traffic & Demand Forecast in 4D trajectory Management Context	The aim of this OI is to benefit from the shared iterative SB/MT development and provides...	SOL OI EN DS ICAO
DCB-0212	Network Performance Assessment for Distributed Network Operation	Network Operations performed at local, sub-regional and regional levels will be continuously...	SOL EN DS

Enablers						
Required/Optional	New/Inherited	Develop/Use	Enabler Code	Enabler Title	Enabler Description	Related Elements
🔒			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
🔒			NIMS-22	Enhanced performance management sub-system	Performance management sub-system equipped with post-analysis tools for analysing the efficiency...	STK OI DS
🔒			NIMS-36	Enhanced Complexity assessment tools	Provision of enhanced complexity assessment tools to the traffic manager...	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
➔			METEO-06c	Generate and provide Meteorological information relevant at short notice ('time to decision' between 3 minutes and 7days)	ATM-MET system acquiring, generating, assembling and providing Meteorological (MET) information...	STK OI EN DS
➔			SWIM-APS-07b	Consumption by Ground Systems of Meteorological Information services for Trajectory Based Operations	Ground systems evolve to consume SWIM enabled services for meteorological information exchange	STK OI DS S