



ICAO

DOMAIN: IIM (Infrastructure & Information Management)

COM PROJECT.4: Integrated Aeronautical Telecommunication Infrastructure

Project Team Coordinator: Togo

AFI Region	PROJECT DESCRIPTION	DP N° C	
<i>Programme</i>	Title of the Project	Start	End
AFI Integrated Aeronautical Telecommunication Infrastructure	<p align="center">AFI</p> <p>Project Coordinator: <i>Togo (Mr AYINA AKILOTAN Cumbi Hugues, ASECNA HQ)</i></p> <p>Project Team Experts: <i>Togo, Benin ,Nigeria, Côte d'Ivoire, Ghana, Kenya, Mauritania, South Africa, Tanzania, Uganda, ASECNA, IATA, ICAO FISS</i></p>		
Objectives	Develop an AFI interoperable seamless telecommunication infrastructure to support ATM, AIM, MET and aeronautical telecommunication services		
Scope	<ul style="list-style-type: none"> • Achieve interoperability among the AFI aeronautical VSAT networks • Develop and implement AFI ATN IPS backbone • Provide a common cybersecured IP based managed network and intranet services based in ATN IPS across the AFI region and its adjacent regions • Provide an efficient support to operational data and potentially voice communications 		
Metrics	Coverage of IP infrastructure with capability to support forthcoming ATM, AIM and MET services		
Goals	Ensure that the aeronautical services are provided in compliance with relevant ICAO SARPs		
Strategy	<ul style="list-style-type: none"> • Upgrade of AFI VSAT networks to support the evolution of the current ATM, MET, AIM services • Implement in addition a global IP infrastructure in the near future to deploy forthcoming ATM, MET, AIM services including AFI IP backbone architecture and addressing plan able to ensure gateways interoperability with the other region. • Implement a global security policy for a secured operation • Training and qualification of Technical and operational staff 		

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	<ul style="list-style-type: none"> ICAO and Designated Experts to conduct technical workshops to support the development of the project 		
Justification	The ASBU modules and the future aeronautical services AIM, MET, ATM, are based on IP protocols suites and require shared intranet infrastructure		
Related projects	<p>COM1/B1 (mainly) B1/1 - Ground-Ground Aeronautical Telecommunication Network/Internet Protocol suite (ATN/IPS)</p> <p>COM1/B2 B2/1 - Air-Ground ATN/IPS</p> <p>COMS/B0 B0/1 - CPDLC (FANS 1/A & ATN B1) for domestic and procedural airspace</p> <p>COMS/B1 B1/1 - PBCS approved CPDLC (FANS 1/A +) for domestic and procedural airspace</p>		
Resources needed	Experts from States, and industry with a relevant knowledge of ATN IPS standards, web services, architecture of information systems and States to host workshops, funds, etc.		

Project Deliverables	Relationship with the regional performance-Objectives (RPO) and ASBU B0 modules	Responsible Party	Status of Implementation ¹	Date of Delivery	Comments
D00] To elaborate and consolidate the terms of reference.	COM1 COMS	PTC		28/07/2022	Taking account alignment of ASBU module during IIM/SG5
D01 Update and transmit the questionnaire to states and ANSPs	COM1 COMS	PTC		30/09/2022	Taking account the alignment to the ASBU module
[D02] Assessment of the current AFI VSAT networks with regard to regard to the ATM requirements	COM1 COMS	Team		31/10/2022	Taking account, report of audit and/or other element available for AFISNET, NAFISAT/SADC, CAFSAT, etc. Spectrum issues (5G, etc..)
[D03] Assessment of the current and forthcoming need of services with regard to the ATM, AIM, MET requirements	COM1 COMS	Team			Coordination AIM and MET PTCs of relevant projects, with the facilitation of the secretariat.
[D04] Organized Technical workshops to support the development of the project, particularly on new concept of information management	COM1 COMS	Team		30/11/2022	Transition of the current network to the forthcoming intranet based on network and IPS environment SWIM, etc...

¹ Grey *Task not started yet*
Green *Activity being implemented as scheduled*
Yellow *Activity started with some delay, but will be implemented on time*
Red *Activity not implemented on time; mitigation measures are required*

Project Deliverables	Relationship with the regional performance-Objectives (RPO) and ASBU B0 modules	Responsible Party	Status of Implementation ¹	Date of Delivery	Comments
[D05] Study and design principle for new AFI Integrated Regional Telecommunication infrastructure	COM1 COMS	Team		31/05/2022	Doc 9896 ATN IPS, DOC 10039 Manuel on SWIM Concept. EUROCAE ED137 VoiP, etc. Based on appropriate technology (VSAT, optical fiber, cloud, virtualization, etc.) <ul style="list-style-type: none"> • IP backbone architecture • IP address scheme definition Assessment of the bandwidth requirements
[D06] Developing KPI tools of the AFI Integrated Regional Telecommunication Infrastructure	COM1 COMS	Team		15/07/2023	Tools for monitoring of operational KPI (Systems and Services) and security and cyberthreat assment
[D07] develop guidance material for implementation and a global security policy for a secured operation	COM1 COMS	Team		15/10/2023	Manual of ATN IPS implementation in the AFI region
[D08] Training and qualification of Technical staff	COM1 COMS	PTC		15/11/2023	TOR to be defined
[D09] Develop AFI Communication Strategy	COM1	PTC		30/11/2023	Team participation and Inputs, with support of stakeholders
[D10] Develop project costing template	COMS	PTC		15/12/2023	Team Participation and Inputs, in the development of project costing template
Resources needed	<ul style="list-style-type: none"> • Experts from States, specifics expertise from industry/states on network and information system architecture • States to host workshops • Funds 				