



ICAO

International Civil Aviation Organization

Tenth Meeting of the Aeronautical Communication Services Implementation Coordination Group (ACSICG/10)

Bangkok, Thailand, 24 - 26 May 2023

Agenda Item 8: Inter-regional AFS/MPLS/IP based connection

AFTN/AMHS CONNECTION BETWEEN APAC REGION AND OTHER REGIONS

(Presented by the Secretariat)

SUMMARY

This paper presents the status of AFTN/AMHS connection between APAC region and other regions.

1. INTRODUCTION

1.1 In October 2021, IP/02 of CNS SG/25 informed the interregional AMHS connection issue to support future AIRM data, such as IWXXM between APAC and EUR/NAT.

1.2 In April 2022, WP/07 of ACSICG/9 provided status of discussion being done for potential interconnection of CRV and REDDIG II and CRV and New PENS.

1.3 This paper summarises the status of AFTN/AMHS connection between APAC region and other regions with reference to the information contained in ASIA/PAC ROUTING DIRECTORY and the COM Charts by EUROCONTROL AMC.

2. DISCUSSION

2.1 Since the AIRM data started to be exchanged within AFS, the pressure on the intra-regional and inter-regional AMHS links between COM centers has been growing.

2.2 Refer to the APAC Routine Directory for AFTN circuits, for the links between Europe and Asia, there are:

- | | |
|--------------------------------------|------|
| 1) Bangkok ^{^i} - Rome | AMHS |
| 2) Beijing [^] - Khabarovsk | AFTN |
| 3) Fukuoka [^] - Moscow | AFTN |
| 4) Singapore [^] - London | AMHS |
| 5) Delhi - Tashkent | AFTN |
| 6) Ulaanbaatar - Irkutsk | AFTN |
| 7) Kabul - Tashkent | AFTN |

2.3 For the links between Mideast and Asia/Pacific, there are:

- | | |
|---------------------|------|
| 1) Karachi - Kuwait | AMHS |
|---------------------|------|

- 2) Karachi - Tehran AFTN
- 3) Karachi - Muscat AFTN
- 4) Mumbai[^] - Muscat AFTN
- 5) Singapore[^] - Bahrain AFTN

2.4 For the links between Africa and Asia/Pacific, there are:

- 1) Brisbane[^] - Johannesburg AMHS
- 2) Mumbai[^] - Nairobi AFTN

2.5 For the links between North America and Asia/Pacific, there are **12** connections to Salt Lake City of USA:

- Salt Lake City[^] - Brisbane[^] AMHS
- Christchurch AMHS
- Chuuk AMHS UA
- Fukuoka[^] AMHS
- Koro AMHS UA
- Kosrae AMHS UA
- Majuro AMHS UA
- Manila AMHS
- Nadi[^] AMHS
- Pago Pago AMHS UA
- Pohnpei AMHS UA
- Yap AMHS UA

2.6 There is no direct connection between South America and Asia/Pacific, the aeronautical messages are routed via USA.

2.7 A extract of AFTN/ATSMHS Inter-Regional Connections from ASIA/PAC ROUTING DIRECTORY is provided in **Attachment A** to this paper.

2.8 COM Chart by EUROCONTROL AMC for AFI, EUR, MID, NAM and SAM as of 25 April 2023 is provided in **Attachment B, C, D, E** and **F** respectively for easy reference. COM Chart for APAC is provided in **Appendix D** of WP/07 for this meeting.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

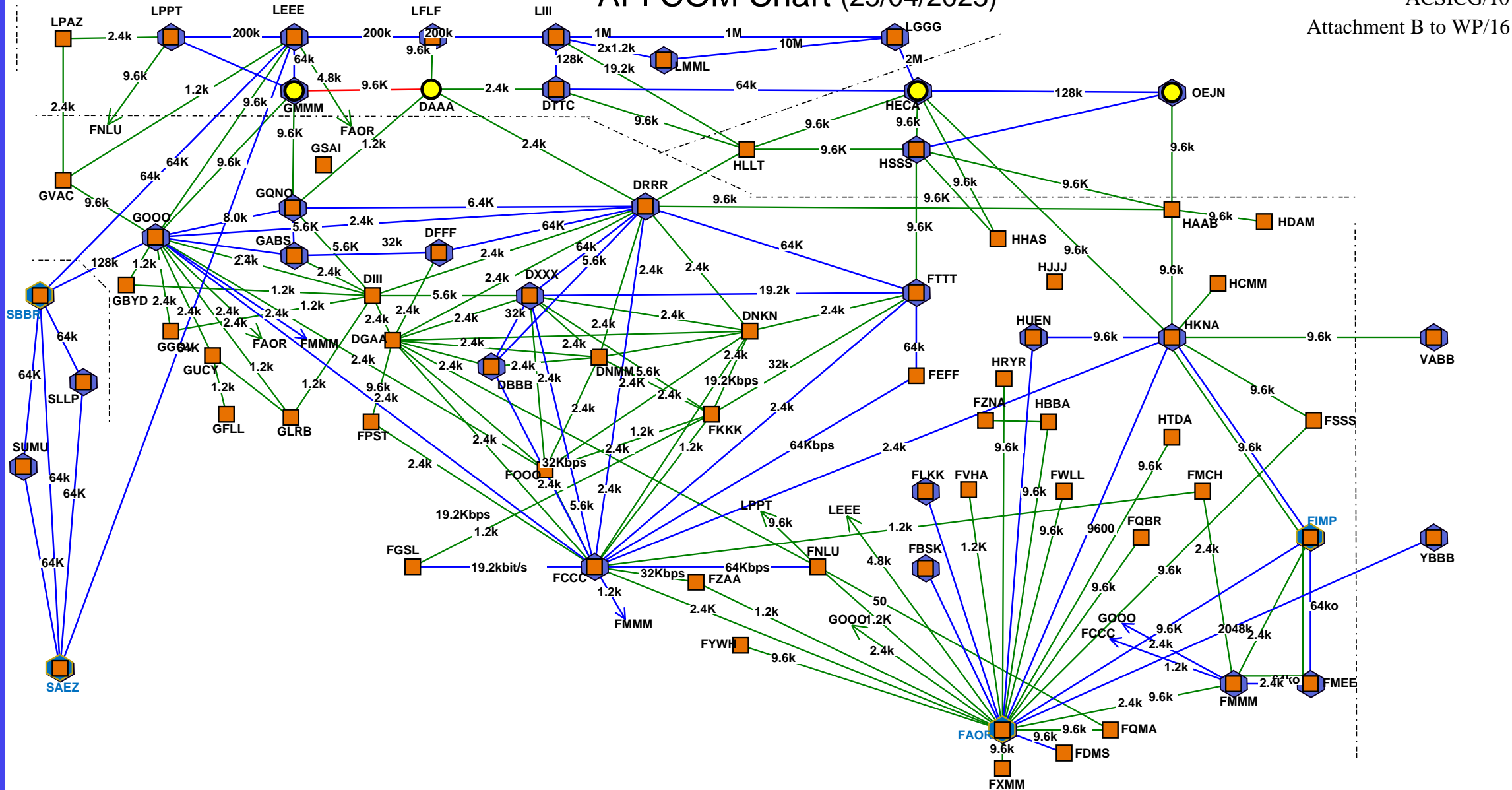
- a) note the information in this paper;
- b) inform ICAO APAC Regional Office on their implementation progress/plan of AMHS with FTBP for intra-regional and inter-regional connections; and
- c) discuss any relevant matter as appropriate.












ⁱ The ^ indicates the Station is a BBIS of APAC.

AFTN/ATSMHS INTER-REGIONAL CONNECTIONS - ASIA/PAC ROUTING DIRECTORY

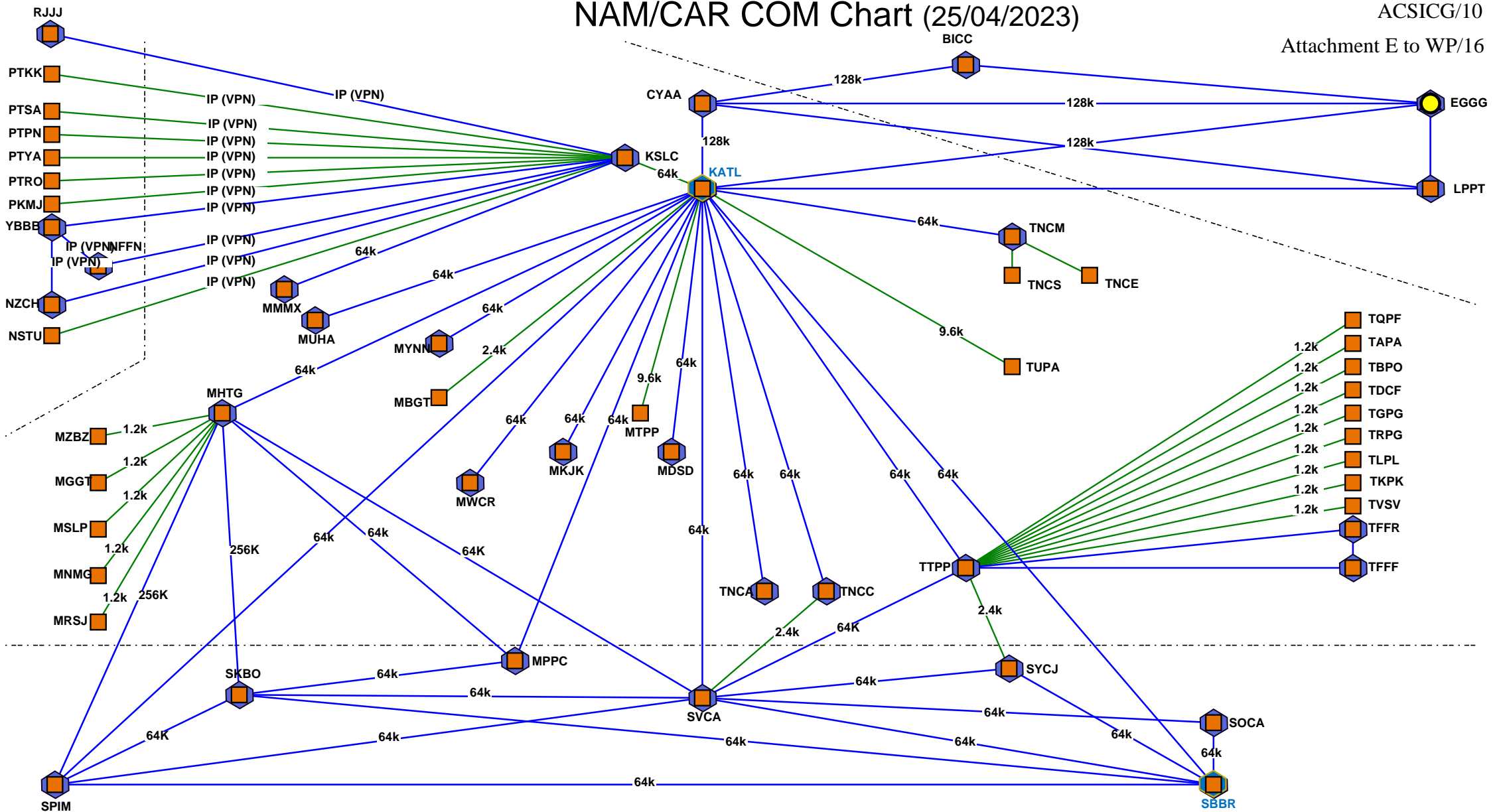
Terminal 1 (^ - BBIS)	Terminal II	ATSMHS or AFTN	Over CRV (Y/N)
Bangkok^	Rome	AMHS	N
Beijing^	Khabarovsk	AFTN	N
Brisbane^	Johannesburg USA	AMHS AMHS	N Y
Delhi	Tashkent /UTTT?	AFTN	
Fukuoka^	Moscow USA	AFTN AMHS	N Y
Hong Kong^			N N
Karachi	Kuwait Tehran (<i>Not listed in the ANP AFTN Planning Table</i>) Muscat	AMHS AFTN AFTN	N
Mumbai^	Muscat/Seeb Nairobi	AMHS(AFTN?) AFTN	N N
Nadi^	USA	AMHS	Y
Salt Lake City^	Brisbane^ Christchurch Chuuk Fukuoka^ Koro Kosrae Majuro Manila Nadi^ Pago Pago Pohnpei Yap	AMHS AMHS AMHS UA AMHS AMHS UA AMHS UA AMHS UA AMHS AMHS AMHS UA AMHS UA AMHS UA	Y Y Y N Y N N N Y Y N N N
Singapore^	Bahrain London	AFTN AMHS	N N
Ulaan Baatar	Irkutsk	AFTN	N

AFI COM Chart (25/04/2023)



	CIDIN/AFTN COM Centre		Fully Meshed Island		9.6k	CIDIN Link with Line Speed		9.6k	AMHS Link with Line Speed
	AFTN COM Centre		AMHS Gateway to SITA		9.6k	AFTN Link with Line Speed		9.6k	AMHS-EUROCONTROL/NM Link with Line Speed
	AMHS COM Centre		PENS			Path			

NAM/CAR COM Chart (25/04/2023)

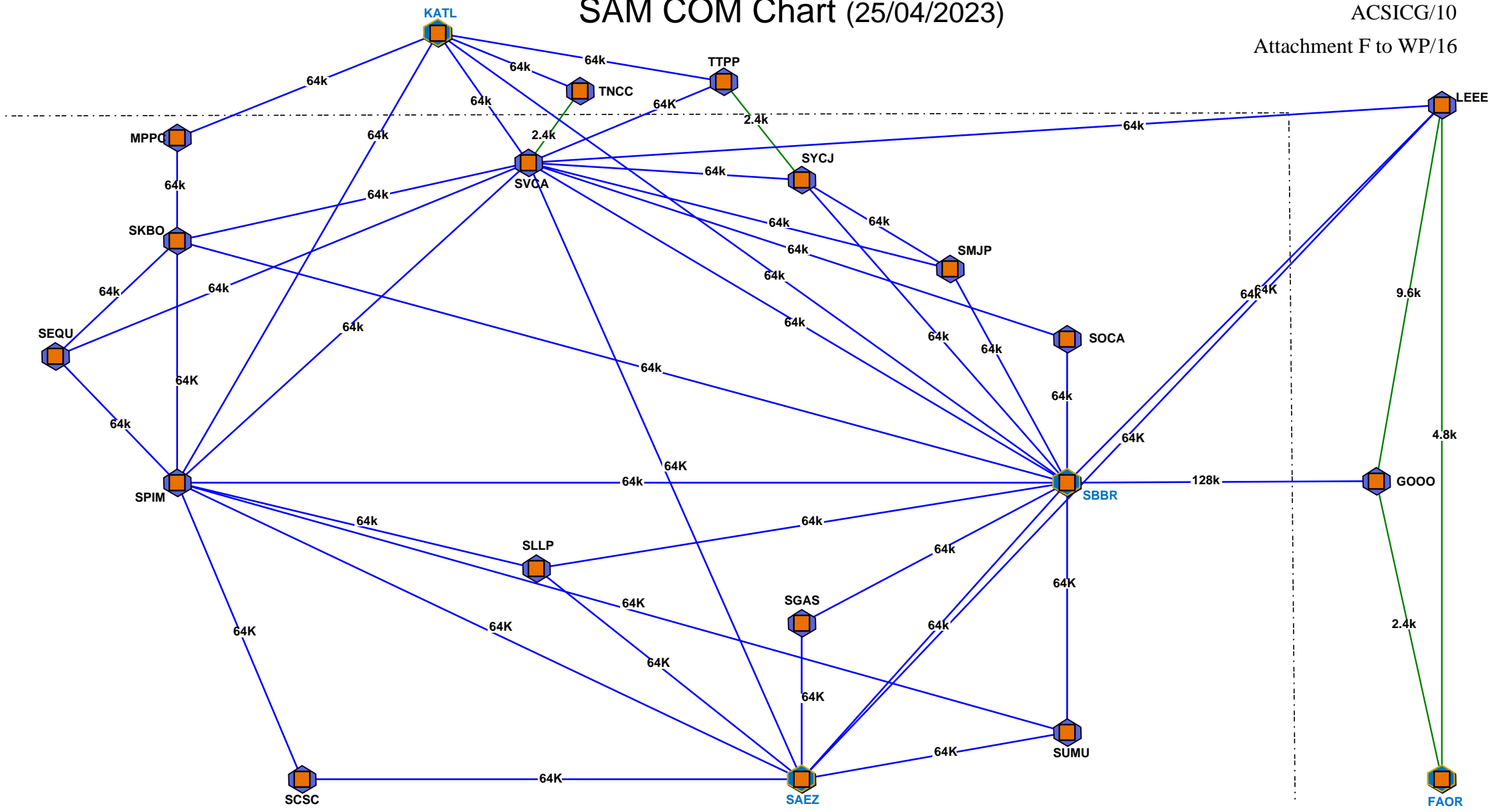


	CIDIN/AFTN COM Centre		Fully Meshed Island		9.6k - CIDIN Link with Line Speed		9.6k - AMHS Link with Line Speed
	AFTN COM Centre		AMHS Gateway to SITA		9.6k - AFTN Link with Line Speed		9.6k - AMHS-EUROCONTROL/NM Link with Line Speed
	AMHS COM Centre		PENS		Path		

SAM COM Chart (25/04/2023)

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Attachment F to WP/16



CIDIN/AFTN COM Centre	Fully Meshed Island	9.6k CIDIN Link with Line Speed	9.6k AMHS Link with Line Speed
AFTN COM Centre	AMHS Gateway to SITA	9.6k AFTN Link with Line Speed	9.6k AMHS-EUROCONTROL/NM Link with Line Speed
AMHS COM Centre	PENS	Path	