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Havana, Cuba, 10 to 12 May 2017

Agenda Item 6: Other Business

PROGRESS WITH LEGACY X.25 AFTN SUPPORT

(Presented by United States)

EXECUTIVE SUMMARY	
This working paper presents the progress for the Federal Aviation Administration (FAA) support of legacy X.25 Aeronautical Fixed Telecommunication Network (AFTN) connections after decommissioning of its X.25 network.	
Action:	Suggested actions are listed in Section 4.
Strategic Objectives:	<ul style="list-style-type: none">• Safety• Air Navigation Capacity and Efficiency
References:	<ul style="list-style-type: none">• Eighth Central Caribbean Working Group Meeting (C/CAR/WG/8) Miami, United States May 2010.• Thirty first MEVA Technical Management Group Meeting (MEVA/TMG/31), Kingston, Jamaica 24-26 May 2016

1. Introduction

1.1 At the Eighth Central Caribbean Working Group Meeting (C/CAR/WG/8) held in Miami, United States in May 2010, the Federal Aviation Administration (FAA) announced plans for decommissioning its X.25 network and concentrating all international X.25 connections at its Atlanta and Salt Lake Network Enterprise Management Center (NEMC) locations.

1.2 The current X.25 network is beyond the End of Life and has no active vendor maintenance. Continued sustainment is increasingly difficult. Similarly the FAA's Aeronautical Fixed Telecommunication Network (AFTN) message switch has X.25 interface cards that need to be retired so that essential server upgrades can be performed.

1.3 Since 2010, the FAA has managed to reduce the number of X.25 network nodes and reduced its X.25 users from approximately 500 to 15. There will shortly be just two operational nodes remaining at Atlanta and Salt Lake City. The remaining users are all international X.25 AFTN with 10 users terminated at the Atlanta MEVA node.

1.4 The table below shows the current FAA Aeronautical Message Handling System (AMHS) transition status. For MEVA users the status is: 4 operational AMHS, 3 in transition testing, and 7 remaining on AFTN/X.25. 3 MEVA users have transitioned to AMHS since the last MEVA/TMG/31 meeting.

Operational AMHS		In Transition		AFTN/X.25	
Dominican Republic	(MEVA)	Aruba	(MEVA)	Australia ^o	(Landline)
Cuba*	(MEVA)	Canada	(Landline)	Bahamas ²	(MEVA)
Fiji	(Landline)	Cayman Islands	(MEVA)	Bermuda ²	(Landline)
COCESNA*	(MEVA)	Jamaica	(MEVA)	Brazil	(MEVA)
Japan	(Landline)	Portugal	(Landline)	Curaçao ²	(MEVA)
New Zealand*	(Landline)			Haiti ²	(MEVA)
Sint Maarten*	(MEVA)			Mexico ^o	(Landline)
Trinidad and Tobago*	(Landline)			Panama ^o	(MEVA)
U.K. NATS	(Landline)			Peru	(MEVA)
				Venezuela	(MEVA)

* Country transitioned to AMHS since MEVA/TMG/31 in 2016.

^o Makes outgoing X.25 calls to FAA only (the operation will change in future)

² Makes and receives X.25 calls (the operation will change in future)

1.5 This paper presents the FAA's progress toward the final elimination of the existing X.25 network and ongoing support for any legacy X.25 connections.

2. Discussion

2.1 ICAO has encouraged existing X.25 AFTN users to migrate to AMHS and the NACC States are implementing an IP-based approach. The FAA has actively supported this approach and has refined a testing and transition process in conjunction with participating Air Navigation Service Providers (ANSPs).

2.2 The FAA's AMHS testing capacity is limited. Users planning an AMHS transition should contact Ms. Dulce M. Rosés (dulce.roses@faa.gov) in order that their preferred timeframe can be scheduled.

2.3 Several MEVA III users are expected to continue to need X.25 AFTN support after the decommissioning of the FAA's network and in advance of their migration to AMHS. A COTS TCP/IP to X.25 conversion solution (using CISCO equipment) has been deployed allowing a local TCP/IP connection, originated from their AFTN switch, to be converted into an outgoing X.25 Switched Virtual Circuit (SVC) connection.

2.4 Since the AFTN switch has geographic redundancy between Atlanta and Salt Lake City, either center may initiate the TCP/IP session. The result is that X.25 SVCs must be initiated by the FAA and received by legacy X.25 users. This may be a reversal of today's operation or a change if two-way initiation is used. Recent implementations of X.25 PADs by the MEVA III vendor (for Brazil, Peru and Venezuela) have already been configured to receive X.25 SVCs only.

3. Conclusion

3.1 In order to complete decommissioning of its X.25 network, legacy X.25 AFTN users will be migrated to a TCP/IP to X.25 conversion capability. The result will be the users may have to change their X.25 configuration to receive X.25 SVC connections from the legacy support system.

4. Suggested Actions

4.1 The Meeting is invited to

- a) take note of the information in this paper; and
- b) take appropriate action as needed