



ICAO

International Civil Aviation Organization

**Eleventh Meeting of the Common aeRonautical Virtual
Private Network Operations Group (CRV OG/11)**

Bangkok, Thailand, 01-03 February 2023

Agenda Item8: States CRV Implementation, CRV Bandwidth Utilization Rate, and operations experience sharing

CURRENT STATUS OF CRV IMPLEMENTATION IN INDIA

(Presented by Airports Authority of India (AAI))

SUMMARY

This paper provides information on the latest progress of CRV implementation in India.

1. INTRODUCTION

- 1.1 India being one of the Pioneer States is committed for implementation of CRV in Asia/Pacific region. This paper presents the progress made by India for implementation of CRV.

2. DISCUSSION

- 2.1 Presently India is having an AMHS system at Mumbai connected to various BBIS and BIS states for exchanging AFTN/AMHS/ADS-B data and Voice on IPLS circuits. The details of existing circuits connected to Mumbai are as indicated in **Annexure-I**.
- 2.2 Being one of the BBIS states, India have been closely monitoring the progress of other BBIS states Singapore, Thailand and China and BIS states for aligning the implementation of the CRV with them for effective utilization of the network.
- 2.3 India has planned to implement the CRV after the CRV trials were successful but the implementation got delayed, due to issues related to taxation and some other clauses, took quite some time to get resolved with PCCW and later on there was further delay due to the COVID-19 Pandemic in year 2020 & 2021 respectively.
- 2.4 India initially plans to have a CRV node connected with Mumbai with the existing AMHS.

- 2.5 The Purchase Order for CRV implementation in India was awarded to M/s PCCWG on 15th March, 2022. The delivery of CRV network in India was getting delayed due to shortage of Semiconductor Chipsets required for Cisco Router.
- 2.6 CRV Network has been delivered and implemented in mid of Dec, 2022 at Mumbai (India). The GRE tunnels has been setup between Mumbai–Bangkok, Mumbai-Singapore, Mumbai–Beijing and Mumbai-Paro. AMHS trails between Mumbai-Bangkok over CRV has been carried out successfully while AMHS trails between Mumbai-Singapore over CRV are presently in progress. The GRE tunnels setup between Mumbai-Kathmandu is presently in progress and likely to be completed by Feb 2023.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper;
- b) encourages concern states to interface their CRV Network with India for further testing and validation;
- c) discuss any relevant matter as appropriate

Annexure-I

INTERNATIONAL LEASED CIRCUITS DATA/SPEECH

S. No	BETWEEN STATIONS	SPEED	TYPE OF CIRCUIT	VOICE/DATA	BBIS/BIS/AFTN/DSC
1	MUMBAI-KARACHI*	128KBPS	Serial Async/AFTN	VOICE	DSC
2	MUMBAI-KARACHI	64KBPS	X400 over TP0 IPS AMHS	DATA	BIS
3	MUMBAI-BEIJING	64KBPS	X400 overX.25 ATN TP4 AMHS	DATA	BBIS
4	MUMBAI-SINGAPORE	64KBPS	X400 overX.25 ATN TP4 AMHS	DATA	BBIS
5	MUMBAI-BANGKOK	64KBPS	X400 overX.25 ATN TP4 AMHS	DATA	BBIS
6	MUMBAI-COLOMBO	64KBPS	X400 over TP0 IPS AMHS	DATA	BIS
7	MUMBAI-KATHMANDU	64KBPS	X400 over TP0 IPS AMHS	DATA	BIS
8	MUMBAI-DHAKA	64KBPS	X400 over TP0 IPS AMHS	DATA	BIS
9	MUMBAI-MUSCAT	64KBPS	X400 over TC0-IPS/AMHS	VOICE & DATA	BIS
10	MUMBAI-YANGON	2MBPS	2 MBPS E1	VOICE/DATA	ADS-B
11	DELHI - LAHORE	64KBPS	DSC	VOICE	DSC
12	CHENNAI-KUALALUMPUR	64KBPS	TCP-IP/AFTN	VOICE	DSC
13	AMRITSAR - LAHORE	64KBPS	DSC	VOICE	DSC
14	MUMBAI-PARO		AMHS Over VPN/Broadband	DATA	AMHS
15	MUMBAI-NAIROBI		AMHS Over VPN/Broadband	DATA	AFTN