



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 Item 8: States CRV Implementation, CRV Bandwidth Utilization Rate, and operations experience sharing

## **CRV POST IMPLEMENTATION ISSUES IN BHUTAN**

(Presented by the Secretariat)

### **SUMMARY**

This paper updates the progress on the issues faced by Bhutan related to CRV post implementation due to the non-readiness of peer States and the action taken by CRV OG and ACSICG for its resolution.

## **1. INTRODUCTION**

1.1 During the CRV OG/8 meeting held from 17 to 19 May 2021, under the Agenda Item 5: *CRV operational performance report*, Bhutan put forward some problems being faced by Bhutan related to CRV post implementation due to the non-readiness of peer States.

1.2 After the CRV OG/8 meeting, as the follow up action, with the support from ACSICG/8, an ad-hoc group with experts from six countries, including Australia, Bhutan, India, New Zealand, Singapore, and Thailand was established to discuss a way out for Bhutan to use its CRV service to some extent temporarily.

1.3 The paper shares the progress made and the latest status of this matter after CRV OG/9 meeting.

## **2. DISCUSSION**

2.1 The first meeting of Ad-hoc group formed by ACSICG/8 and CRV OG/8 agreed that Bhutan could connect to AMHS through CRV tunnel directly to New Zealand, and New Zealand can act as a bridge between CRV and existing AMHS circuits for Bhutan. The second meeting of the Ad-hoc group discussed the AFTN Routing Directory changes and agreed that Bhutan and New Zealand will bilaterally coordinate to implement CRV connectivity and the next meeting will be based on the request from Bhutan and New Zealand.

2.2 During the CRV OG/9 held from 25 to 27 January 2022, Bhutan and New Zealand further updated that they have completed System Engineering Plan (SEP), signed a technical letter, and managed router service as of 20th December, 2021.

2.3 The Ninth Meeting of the Aeronautical Communications Services (ACS) Implementation Coordination Group (ACSICG/9) held from 19 to 21 April 2022 noted that Bhutan has revised the

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System Engineering Plan (SEP) document, and the managed router service revision has been completed on 25th February 2022. The acceptance and bidirectional test was to be performed between the two countries after the completion of technical setup from New Zealand.

2.4 The ACSICG/9 meeting also noted that Thailand has already implemented CRV and it planned to test CRV circuits with Bhutan in **June 2022**, and discussed the need to continue the work of Ad-Hoc group formed in ACSICG/8, as mentioned above. It was agreed that Bhutan and New Zealand would continue to work on above mentioned on-going proposal. The Ad-Hoc group will meet in last week of June 2022 to note the status of testing of CRV circuits between Bhutan and Thailand and progress on implementation of the temporary routing through New Zealand. Based on the status, the Ad-Hoc group will decide to continue the task to implement GRE tunnel between Bhutan and New Zealand or to close the action item.

2.5 Bhutan further informed the ICAO Office through email on 6th July 2022 that considering the connectivity between Bhutan and Thailand is currently under inspection process for reliability/stability test and after consensus with New Zealand, Bhutan has decided to discontinue the temporary CRV connectivity with New Zealand.

2.6 Therefore, the ad-hoc group formed to resolve this issue has completed the job. Therefore, it is proposed that ad-hoc group may be dissolved and relevant action items resulted from CRV OG and ACSICG may be closed.

**3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) note the information contained in this paper; and
- b) review the status of CRV post implementation issue raised by Bhutan and close relevant action items as required; and
- c) discuss any matters as appropriate.

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