



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 3: Review outcomes of relevant meetings

OUTCOMES OF IDEA GENERATION WORKSHOP: CRV GOVERNANCE

(Presented by the Secretariat)

SUMMARY

This paper presents the outcomes of the ICAO Asia Pacific Idea Generation Workshop: CRV Governance held on *31 January 2023* at the ICAO APAC Office, Bangkok, Thailand.

1. INTRODUCTION

1.1 The ICAO Asia Pacific Idea Generation Workshop: CRV Governance was held at the ICAO APAC Office, Bangkok, Thailand on *31 January 2023*.

1.2 The Workshop was attended by **41** participants from **13** States/Administrations, **2** International Organization, and **1** telecommunication provider from Australia, Fiji, Hong Kong China, India, Indonesia, Japan, Jordan, Nepal, New Zealand, the Republic of Korea, Singapore, Thailand, USA, PCCW Global, Eurocontrol and ICAO. The Workshop report, presentations, and other resources can be accessed by following link:

<https://www.icao.int/APAC/Meetings/Pages/2023-CRV-Governance-Workshop.aspx>

1.3 This paper summarized the key outcomes of ICAO Asia Pacific Idea Generation Workshop: CRV Governance.

2. DISCUSSION

2.1 Total **Three (3)** presentations were delivered by Mr. Francisco Almeida, Regional Officer, CNS, ICAO SAM Regional Office, Ms. Nathalie Moedersheim, PENS Management Unit Lead of EUROCONTROL, and CRV OG Co-chair (Asia), followed by the brainstorming session. The presentation materials can be accessed by the link: <https://www.icao.int/APAC/Meetings/Pages/2023-CRV-Governance-Workshop.aspx>.

2.2 The summaries of all presentations along with final outcomes are provided in **Appendix A** to the paper.

Agenda Item 3

01-03/02/23

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper; and
- b) discuss any matters as appropriate.



**INTERNATIONAL CIVIL AVIATION ORGANIZATION
ASIA AND PACIFIC OFFICE**

REPORT

OF

ICAO APAC IDEA GENERATION WORKSHOP: CRV GOVERNANCE

Bangkok, Thailand
31 January 2023

The views expressed in this Report should be taken as those of
the Webinar and not the Organization.

HISTORY OF THE WORKSHOP

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LIST OF ATTACHMENTS

Attachment 1: List of Participants

Attachment 2: Workshop Programme

Attachment 3: Presentation Materials + Q&A

1. Introduction

1.1 The ICAO APAC Idea Generation Workshop: *CRV Governance* was held on 31 January 2023 in ICAO Asia and Pacific Regional Office, Bangkok, Thailand.

2. Attendance

2.1 The Workshop was attended by **41** participants from **13** States/Administrations, **2** International Organization, and **1** telecommunication provider from Australia, Fiji, Hong Kong China, India, Indonesia, Japan, Jordan, Nepal, New Zealand, the Republic of Korea, Singapore, Thailand, USA, PCCW Global, Eurocontrol and ICAO. The list of Participants can be accessed [here](#).

3. Opening of the Workshop

3.1 The Workshop was opened by Mr. Vaughan Hickford, Team Leader Network Design, Airways New Zealand, CRV OG Co-Chair (Asia), and Mr. Kelepi Dainaki, Manager Air Navigation Engineering Services, Fiji Airport Limited, CRV Co-Chair (Pacific). On behalf of the ICAO APAC Regional Office, Ms. Soniya Nibhani, Regional Officer, ANS (CNS) Implementation, CRV OG Secretary, extended a warm welcome to all participants. She shared the primary objectives of the Workshop and appreciated the support of the ICAO SAM office, ICAO EUR/NAT Office, Eurocontrol, and PCCWG to organize the Workshop and States to implement the CRV.

4. Officers and Secretariat

4.1 The Workshop was led by CRV OG Co-Chair (Asia). Ms. Soniya Nibhani, Regional Officer, ANS (CNS) Implementation, and Ms. Zhong Wenhan, Regional Officer, CNS, acted as the facilitators and coordinators of the Workshop with the support of Ms. Varapan Meefuengsart, the Programme Assistant of ICAO Asia and Pacific Regional Office. The Workshop was organized in **two Sessions**. The Programme for the Workshop can be accessed [here](#).

5. Organization, working arrangements, and language

5.1 The Workshop was organized for a full day. The working language was English, inclusive of all documentation and this Report.

Session-1

6. Summary of Presentations

6.1 A total of **Three (3)** presentations were delivered by Mr. Francisco Almeida, Regional Officer, CNS, ICAO SAM Regional Office, Ms. Nathalie Moedersheim, PENS Management Unit Lead of EUROCONTROL, and CRV OG Co-chair (Asia), followed by the brainstorming session. The presentation materials can be accessed by the link: <https://www.icao.int/APAC/Meetings/Pages/2023-CRV-Governance-Workshop.aspx>.

6.2 The summaries of all presentations are provided in the following sections.

SAM Digital Network Governance - REDDIG Governance

6.3 Mr. Francisco Almeida, Regional Officer, CNS, ICAO SAM Regional Office, presented a brief introduction to the *SAM Digital Network Governance – REDDIG*. The presentation shared the background of the establishment of REDDIG and the current topology of REDDIG II. The presentation further elaborated on REDDIG governance, including the current managerial organization for the REDDIG Project under ICAO to the REDDIG II network management concept through the Network Control Center (NCC). It was concluded that due to the high availability of REDDIG, high availability in all the services it transports is also guaranteed.

6.4 During the Q&A session, many questions were asked by participants, and good deliberation was held throughout the session. CRV OG Co-Chairs appreciated the ICAO SAM Office for their insightful presentation and sharing useful information.

PENS - The European Regional IP Network

6.5 Ms. Nathalie Moedersheim, PENS Management Unit Lead of EUROCONTROL, presented the governance of PENS - The European Regional IP Network. She shared that the PENS Governance manages the PENS Service Provision and the strategic needs of the users, and the strategic evolution of PENS is coordinated as part of the EUROCONTROL CDM working arrangements with the Network Directors of Technology (NDTECH) group of the Network Management Board (NMB). Additionally, the PENS Decision Making Procedure, PENS Implementation, (New) PENS Charging Scheme and Embedding Service Provider Organisation in the (New) PENS Service Management Framework were elaborated.

6.6 During the Q&A session, many questions were asked by participants, and good deliberation was held throughout the session. CRV OG Co-Chairs appreciated the ICAO SAM Office for their insightful presentation and sharing useful information.

CRV Governance

6.7 CRV OG Chair (Asia) presented information about APAC CRV Governance. He explained the necessity of establishing the Asia-Pacific-Region-wide Internet Protocol (IP) communication network- CRV and the brief history of CRV Operations Group (CRV OG). Analyzing the current CRV governance in the APAC region, the requirements for improvements to support APAC Member States to handle any issues/matters related to CRV more effectively were shared. The presentation invited the delegate's views on the change required in the CRV governance process by referencing REDDIG II and New PENS governance.

Session-2

Brainstorm Session

6.8 The meeting deliberated the governance structure of REDDIG II and New PENS. It was noted that in REDDIG II, ICAO SAM office involvement is very high for the regional network's operations and maintenance. The New PENS' operations and maintenance are mainly responsibilities of PENS Governance in coordination with the ICAO EUR/NAT Office. However, the CRV OG manages the operational issues related to CRV shared by Member States, while network operations are primarily the responsibilities of the CRV Service provider (PCCWG) and concerned States. Any issues and ideas are brought to the CRV OG by the Member States.

6.9 While discussing the significance of work done by the CRV OG Ad-hoc Expert group, the meeting noted that the Ad-hoc group looks after various issues and matters related to improving CRV contracts along with updates of CRV Reference Documentation. The meeting discussed if CRV OG should adopt or modify the structure based on the current REDDIG II and New PENS structure. CRV requires more work and contribution from Member States for future tender process preparation, regional interconnection, cybersecurity issues, etc.

6.10 In the future, we need the involvement of more members to do more work required to maintain CRV. CRV OG Co-Chair (Asia) reminded about four ad-hoc groups formed: Service Strategy, Service Design, Service Transition, and Service Operations. It was discussed that the CRV OG Ad-hoc Expert group appears to act as a technical advisor to CRV OG.

6.11 One suggestion was to appoint a dedicated person for CRV operations at ICAO APAC Office with funding from APAC Member States. CRV Co-Chair (Asia) suggested thinking

more about the proposed position's role and responsibilities along with a consistent funding mechanism. Another potential solution discussed was to redefine the scope of work of the existing Ad-hoc group and ask more Member States to volunteer.

6.12 The Co-Chair (Pacific) proposed to form a group to assess the ideas generated by this Workshop for potential improvement options. A part of the group may also support promoting CRV and its benefits and sharing experiences to support more states joining CRV.

7. Closing of Workshop

7.1 CRV OG Co-Chair (Asia) shared their gratitude to delegates for their active participation and sharing of ideas. He summarised the key messages from each presentation and extended sincere appreciation to all speakers for joining the Workshop and sharing the information with APAC Member States.
