



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 4: CRV OG Reference documents
- CRV OG Operations Manual
 - CRV Implementation Plan
 - Outcomes of Ad-hoc expert Strategy, Design, Transition and, Operations Groups

OUTCOMES OF AD-HOC GROUP MEETINGS

(Presented by Airways New Zealand)

SUMMARY

This paper presents a summary of the outcomes of the APAC CRV Ad-Hoc Group discussions

1. INTRODUCTION

1.1 Eight Ad-hoc meetings were held between CRV OG/9 on 25-27 January 2022 and CRV OG/11 on 1-3 Feb 2023 via Microsoft TEAMS VTC

1.2 A separate meeting was held with the SWIM taskforce team leads on 28 October 2022.

2. DISCUSSION

2.1 Service Strategy
All current work in this section has been completed.

Service Design
All current work in this section has been completed.

Service Transition
All current work in this section has been completed.

Service Operation

- i. Co-Chair Asia presented the current risk table which is based on the Airways Risk Evaluation Framework. There are two other options, the ICAO

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framework and another International Framework. Both options will require some crafting.

This will be presented in a separate working paper.

- ii. The matter of grooming a service to mitigate an outage due to PCCW maintenance was discussed. PCCW to review the options on managing this, email request vs formal change request.

Maintenance activity mostly involves multiple internal and external parties, PCCWG would first evaluate potential service impact and identify the affected circuits.

PCCWG suggestion is:

After internal analyses, PCCWG will issue maintenance notification by email to affected customers.

The Email notification includes customer name, affected services, maintenance description and interruption duration.

If customer has any concerns about the activity, please EMAIL PCCWG to follow up.

PCCWG will examine the inquiry and offer the best workaround, if that is available.

To increase service resiliency, PCCWG encourages member states to consider service packages with higher network redundancy.

In view of different network environment and service subscription criteria among member states, PCCWG could work with your network architect for appropriate solution design.

Contract Extension

This was discussed at length over both meetings and an outcome was agreed upon which is presented in WP/06.

Upgrade/Downgrade CRV Circuits Subscribed

This was discussed at length over both meetings and an outcome was agreed upon which is presented in WP/04.

Different CRV Users and their joining process

This was discussed at length over both meetings and an outcome was agreed upon which is presented in WP/05.

Package D+ formalization

This was discussed at length over both meetings and an outcome was agreed upon which is presented in WP/07.

CRV and REDDIG II interconnection

There has been no progress with this interconnectivity. Representatives from the US FAA and PCCWG have offered to reach out to the REDDIG II provider Lumen via their contacts.

Other Business

The mandate of firewall- Co-Chair Asia will present a WP at OG 11 based on options and the discussion from the SWIM workshop.

Common Package Review- The Common Package needs to be reviewed against the Documentation chart in the Operations Manual for duplicates, versions and naming. **Action All once the export is completed.** This will be an ongoing Ad-Hoc Group discussion until it is ready to present to the CRV OG.

Chairs functions- Chairs function outside the OG meetings in regard to approving document changes and updates, as well as being notified of changes within the network-ICAO Secretariat will propose the functions in consultation with chairs. **A separate Governance meeting will be held the day before OG 11 to discuss this and the next item.**

Operations manual as a formal document – it was raised whether or not it is mandatory to use the OG Manual and the fact that it is an informal document as stated in 1.1 Introduction. It was discussed that whilst it wasn't mandatory that States use the Operations Manual, it is expected it is used, it is discussed at every OG meeting and not using it could result in unexpected costs and service outages that the OG would not be able to help with.

If the OG Manual is declared a formal document, what are the implications? ICAO Secretariat will propose the functions in consultation with chairs.

Next meeting

April 2023

- 2.2 The Combined SWIM TL and CRV OG Experts meeting held on 28 October 2022 discussed:
- i. SWIM Principally over CRV
 - ii. SWIM TF/6 Action Items related to CRV OG
 - iii. PCCW Console Connect Aviation Platform
- 2.3 The work of the Ad Hoc Expert Group has proved to extremely valuable. The opportunity exists to recognise this Group as a permanent function of the CRV OG and should be adopted as such.

3. ACTION BY THE MEETING

The meeting is invited to:

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

Joint CRV OG Experts and SWIM TF TLs meeting: 28 October 2022
28 October 2022, Video Tele-Conference (VTC)

Minutes of the meeting of Joint CRV OG Experts and SWIM TF TLs meeting: 28 October 2022 08:00 AM-10:00 AM BKK time

Meeting Date: 09/28/2022 08:00 AM

Location: Microsoft Teams Meeting

Notes:

The meeting was moderated by Dr. Amornrat Jirattigalachote, Strategic Planning Manager (Engineering), Policy and Strategy Management Bureau of AEROTHAI. Mr. Vaughan Hickford, Team Leader Network Design, Airways New Zealand, Co-Chair (Asia) represented CRV OG expert group team. Ms. Soniya Nibhani, Regional Officer ANS (CNS) Implementation, ICAO Asia and Pacific Regional Office, acted as the secretary of the meeting.

Agenda Item 1: Welcome & Opening remarks

1. Dr. Amornrat Jirattigalachote, SWIM TF Co-Chair, Ms. Kristin Cropf, SWIM TF Co-Chair, Mr. Vaughan Hickford, CRV OG Co-Chair (Asia), and Mr. Kelepi Dainaki, CRV OG Co-Chair (Pacific) welcomed all delegates and shared opening remarks.
2. The presentation used to moderate the meeting is attached herewith for detailed information:



SWIM and CRV Joint
Meeting_28 October_

Agenda Item 2: SWIM principally over CRV

- SWIM Infrastructure
 - SWIM TI Interface Binding
 - The Use of the Internet for MET Information Services in Regional SWIM architecture
3. Task 2 lead shared the detailed about SWIM Infrastructure and SWIM TI Interface binding. He shared global, regional, and local requirements and challenge for SWIM Infrastructure and what should we do as the next step. Additionally, he informed about the efficient collaborative way to promote regional SWIM implementation.
 5. He informed about International Aviation Trust Framework (IATF) and the Trust System Panel recently implemented to promote trust framework. He added that JCAB, Aero Thai, and FAA had joint demonstration for PKI-based security service last year in ICAO APAC SWIM workshop held from 6-7 July 2021.

Joint CRV OG Experts and SWIM TF TLs meeting: 28 October 2022
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Agenda Item 3 SWIM TF/6 Action Items related to CRV OG

Agenda Item 4 PCCW Console Connect Aviation Platform

6. Various action items resulted from the past SWIM TF meetings related to CRV OG and PCCWG Console connect aviation platform including PKI management were discussed.
7. It was deliberated that PCCWG can connect to any of other entities but while it come to CRV, it should come through GRE tunnel.
8. Mr. Vaughan explained that use of firewall is recommended but not mandated in CRV. If we mandate the use of firewall by any users joining CRV, we need to specify types of firewall, specification, quality, level of firewall, etc., which are complicated. Currently security is built on trust that States are using good security protocols. However, how can we prove that security measure are appropriate is a question. Security audit may be an option but entering external entities into State security environment may be an issues. Consequently, without trust framework it may be difficult. ICAO Secretariat will include **the mandate of firewall discussion** agenda in the next agenda items of CRV OG ad-hoc expert group. **ACTION ITEM 1-1.**
9. Meeting agreed to have the next joint group meeting any day in the **third week of February 2023** to discuss in more detailed about network binding and how SWIM TF and CRV OG will collaborate **from 20 February- 24 February 2023**. ICAO Secretariat will share doodle to finalize the final date with contributors and task leads. **ACTION ITEM 1-2**
10. Mr. Hoang Tran requested SWIM TF to consider governance of the SWIM considering future traffic conditions which was noted by SWIM TF.