

**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 11:** Using the rest of CRV Pioneer State Contribution to the ICAO Managed Service Agreement (MSA)

## **USING THE REST OF THE PIONEER STATE MONEY – ToR OF SAFETY ASSESSMENT**

(Presented by Airways New Zealand)

### **SUMMARY**

This paper presents provides Safety Assessment options for the CRV with a view to carrying this out using the remaining Pioneer State money.

## **1. INTRODUCTION**

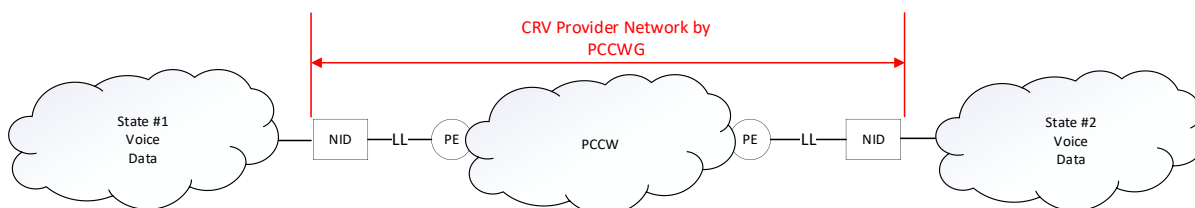
- 1.1 Discussion at CRV OG meeting has suggested that the remaining funds from the CRV Project could be used to facilitate a Safety Assessment of the CRV network. It is assumed that the Safety Assessment means a Cyber Security Review.
- 1.2 There are several options that could be explored to achieve this.

## **2. DISCUSSION**

- 2.1 Safety Assessments or Security reviews are normally carried out by an expert third party covering anything and everything from reviewing the design, implementation, management, documentation, penetration testing to test security measures and configuration robustness.
- 2.2 Safety/Security reviews require the sharing of information and configuration. The result of a review will result in a report with recommendations.
- 2.3 The sharing of information to execute a review and the subsequent report could indicate the tested environments potential implementation of security measures. This implies that it may be possible to determine what PCCWG and each State has implemented for network security and any vulnerabilities each of these has. This should be taken into consideration when considering a Security Review,

2.4 The possible Security Review options that could be considered are:

2.4.1. CRV Provider network only



- i. Option 1 - Desktop review of the PCCWG implementation only.

This option would involve PCCWG sharing the design and implementation documentation, including configuration files with an expert reviewer. The RFP document would need to be shared as part of this review as a reference.

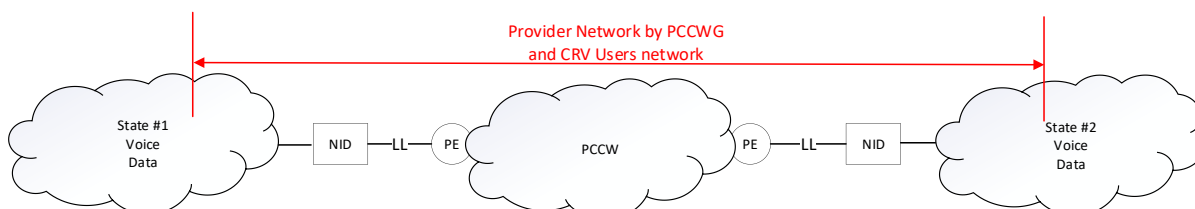
Once reviewed, the report would indicate what vulnerabilities exist based on a risk matrix and recommendations to mitigate or resolve.

- ii. Option 2 - Penetration test of the PCCWG implementation only.

This option would involve a penetration tester access the PCCWG CRV network from PCCWG’s office, POP or CRV users site. The test would involve discovering but not limited to the connectivity available from that site with the CRV network, including any possible exploits of the PCCWG NID, visibility of the last mile service providers network, visibility of the internet, visibility of the wider PCCWG network.

Once reviewed, the report would indicate what vulnerabilities exist based on a risk matrix and recommendations to mitigate or resolve.

2.4.2. CRV Provider and CRV User network



- i. Option 3 - Desktop review of the end-to-end implementation including States connectivity.

This option would involve both PCCWG and CRV OG users sharing the design and implementation documentation, including configuration files with an expert reviewer. The RFP document would need to be shared as part of this review as a reference.

Once reviewed, the report would indicate what vulnerabilities exist based on a risk matrix and recommendations to mitigate or resolve.

- ii. Option 4 - Penetration test of the end-to-end implementation including States connectivity.

This option would involve a penetration tester access the PCCWG CRV network from PCCWG’s office, POP or CRV Users site. The test would involve discovering but not limited to the connectivity available from that site with the CRV network, including any possible exploits of the PCCWG NID, visibility of the last mile service providers network, visibility of the internet, visibility of the wider PCCWG network and access or visibility of the CRV Users network and associated systems..

Once reviewed, the report would indicate what vulnerabilities exist based on a risk matrix and recommendations to mitigate or resolve.

- 2.4.3. Option 5 - Engage a Security consultant to review the Common Package, RFP documentation including the response, Implementation Plan and the Operations Manual and provide a Security recommendation based on this review.

The recommendations would not necessarily expose any States or PCCWGs security implementations.

Any agreed recommendations we implement would need to be implemented on trust.

- 2.4.4. Option 6 – Request PCCWG to carry out either a one off, annual or biennial Security Reviews and disclose the recommendations to be discussed by the CRV OG.

2.5 It is anticipated that this will use all of the remaining funds from the project. Consideration from the CRV should be given to the possibility of needing to contribute further funds depending on the ToR and subsequent quote.

2.6 If there is any Conclusion/Decision which is expected from the meeting, please complete the following table:

<b>Draft Conclusion CRV OG/11/xx -</b>		<b>Decide on a Security Review option and develop a ToR</b>	
<b>What:</b>	The utilisation of the CRV Project Funds would be used to carry out a Security Review of the CRV.	<b>Expected impact:</b>	<input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
<b>Why:</b>	To provide State assurance on the security of the CRV network.	<b>Follow-up:</b>	<input type="checkbox"/> Required from States
<b>When:</b>	3-Feb-23	<b>Status:</b>	Draft to be adopted by Subgroup
<b>Who:</b>	<input type="checkbox"/> Sub groups <input type="checkbox"/> APAC States <input type="checkbox"/> CAO APAC RO <input type="checkbox"/> CAO HQ <input checked="" type="checkbox"/> Other: CRV OG		

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**3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) note the information contained in this paper;
- b) deliberate the finalization of the scope of work; and
- c) discuss any relevant matter as appropriate

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