



ICAO

*International Civil Aviation Organization*

**Ninth Meeting of the Common aeRonautical Virtual  
Private Network Operations Group (CRV OG/9)**

Video Teleconference, 25 – 27 January 2022

**Agenda Item 9:** MPLS/IP based inter-regional connection

**Technical Proposal for Regional IP Network Interconnection**

(Presented by PCCW Global Limited)

**SUMMARY**

This paper highlights how States in CRV Network can communicate with States in REDDIG II Network

**1. INTRODUCTION**

- 1.1 There is a requirement to setup the AMHS P1 connection between AMHS COM Centers of Christchurch (New Zealand) and Santiago (Chile).
- 1.2 PCCWG proposed an Interconnection solution between CRV Network and REDDIG II Network.
- 1.3 This solution allows State in CRV Network to communicate (voice and/or data) with State in REDDIG II Network

**2. DISCUSSION**

- 2.1 PCCWG proposed to establish two (2) Interconnection Points between CRV Network and REDDIG II Network (Figure 1): One for Primary and One for Backup.
- 2.2 Additional resources are required to build these connections, such as Co-location rack, Interconnection router, Interconnection link, Connection to CRV Network and Connection to REDDIG II Network.
- 2.3 Both PCCWG and Lumen will host the routers in the same Data Centers. The locations are to be defined and agreed.
- 2.4 Interconnection Link will be connected between PCCWG provided Router and Lumen provided Router. This link is share responsibility between PCCWG and Lumen.
- 2.5 If States in CRV Network need to communicate with States in REDDIG II Network, an official mutual agreement to communicate must be provided.

- 2.6 States in CRV Network need to place Interconnection order and update System Engineering Plan to specify the type of traffic (e.g. data, voice) to communicate and the IPs allow to communicate. States in REDDIG network need to place Interconnection order to Lumen respectively.
- 2.7 States need to ensure there is sufficient spare bandwidth to support additional Voice/Data communication with States in REDDIG.
- 2.8 GRE tunnels will be built between State in CRV and PCCWG Router in Interconnection Point.
- 2.9 Both PCCWG and Lumen Routers in Interconnection Point will allow only the agreed IP or IP subnet to communicate between agreed State in CRV Network and agreed State in REDDIG II Network. The QoS mapping also needs to be defined in advance.
- 2.10 In case of any fault issue, State in CRV Network will report to PCCWG and State in REDDIG II Network will report to Lumen.
- 2.11 PCCWG can only troubleshoot from State in CRV Network to Routers in PCCWG Rack in Data Center. Lumen can only troubleshoot from State in REDDIG II Network to Routers in Lumen Rack in Data Center. Interconnection between PCCWG and Lumen in Data Center is share responsibility by both PCCWG and Lumen.
- 2.12 PCCWG SLA will only cover the CRV sites up to the CRV Interconnection router.

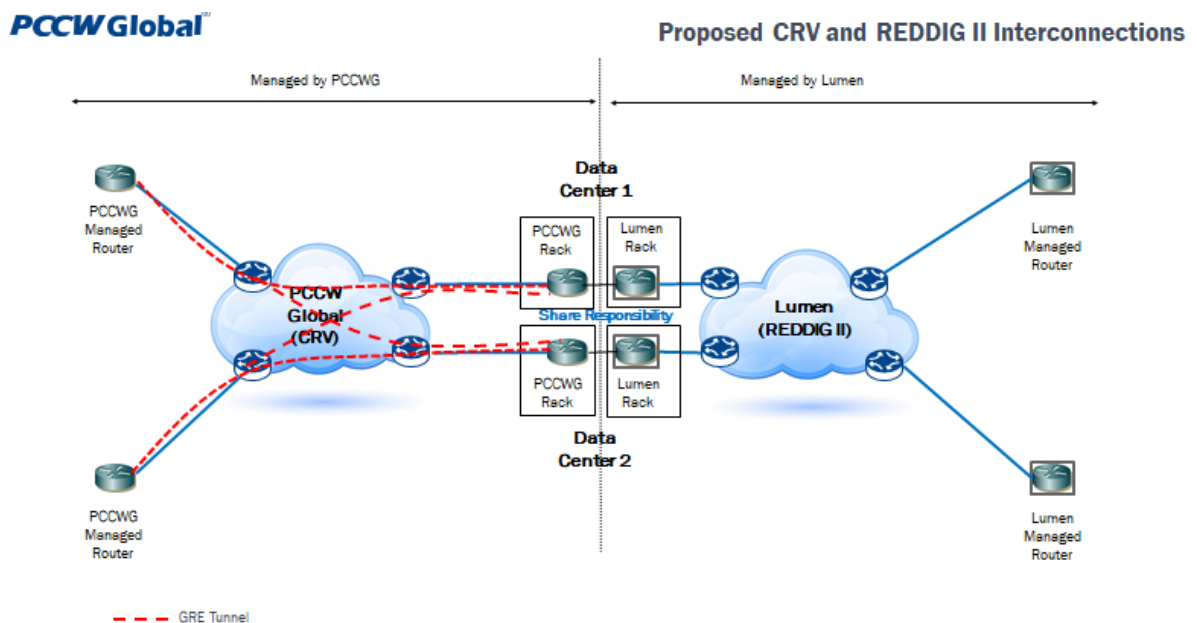


Figure 1 – PCCWG Proposed CRV and REDDIG II Interconnections solution

### 3. ACTION BY THE MEETING

- 3.1 The meeting is invited to:
  - a) note the information contained in this paper;

- b) CRV OG need to confirm which states will require communication between CRV Network and REDDIG II Network to determinate the sizing and cost of the interconnection solution; and
- c) discuss any relevant matter as appropriate

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