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INTERNATIONAL
CIVIL AVIATION
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Common aeRonautical Virtual permanent network [CRV]

SP08- Sharing of current ATS infrastructure, constraints/issues, and desired enhancements by Fiji

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Presentation Overview

01 Current ATS Infrastructure

02 Constraint/Issues

03 Desired Enhancement

04 Conclusion

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01

Current ATS Infrastructure

- ✓ Local connection is supported by the national CSP on Fiber Optic network with TFL and Mobile Carrier Services of Digicel & Vodafone.
- ✓ International connection is supported by FINTEL using the Southern Cross submarine cable for connection to Australia, New Zealand and USA
- ✓ CRV System installed at the ATM Center is supported by reliable power supply system

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FINTEL Southern Cross Cable
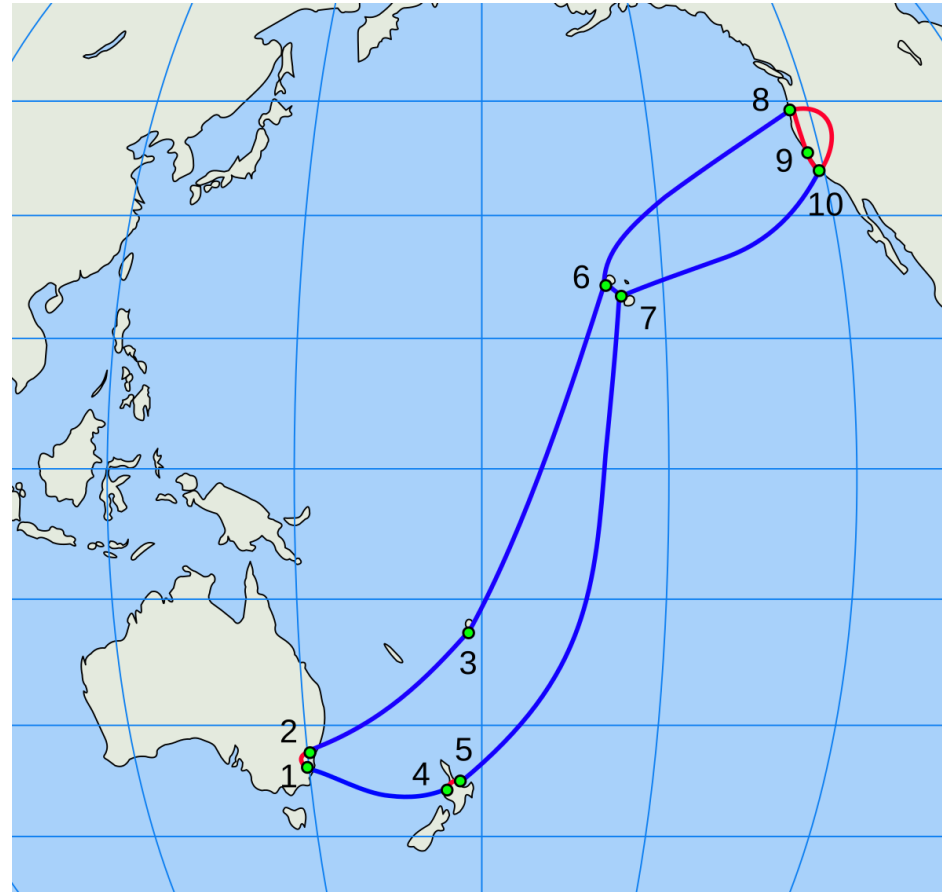
Telecom Fiji (TFL) Footprints
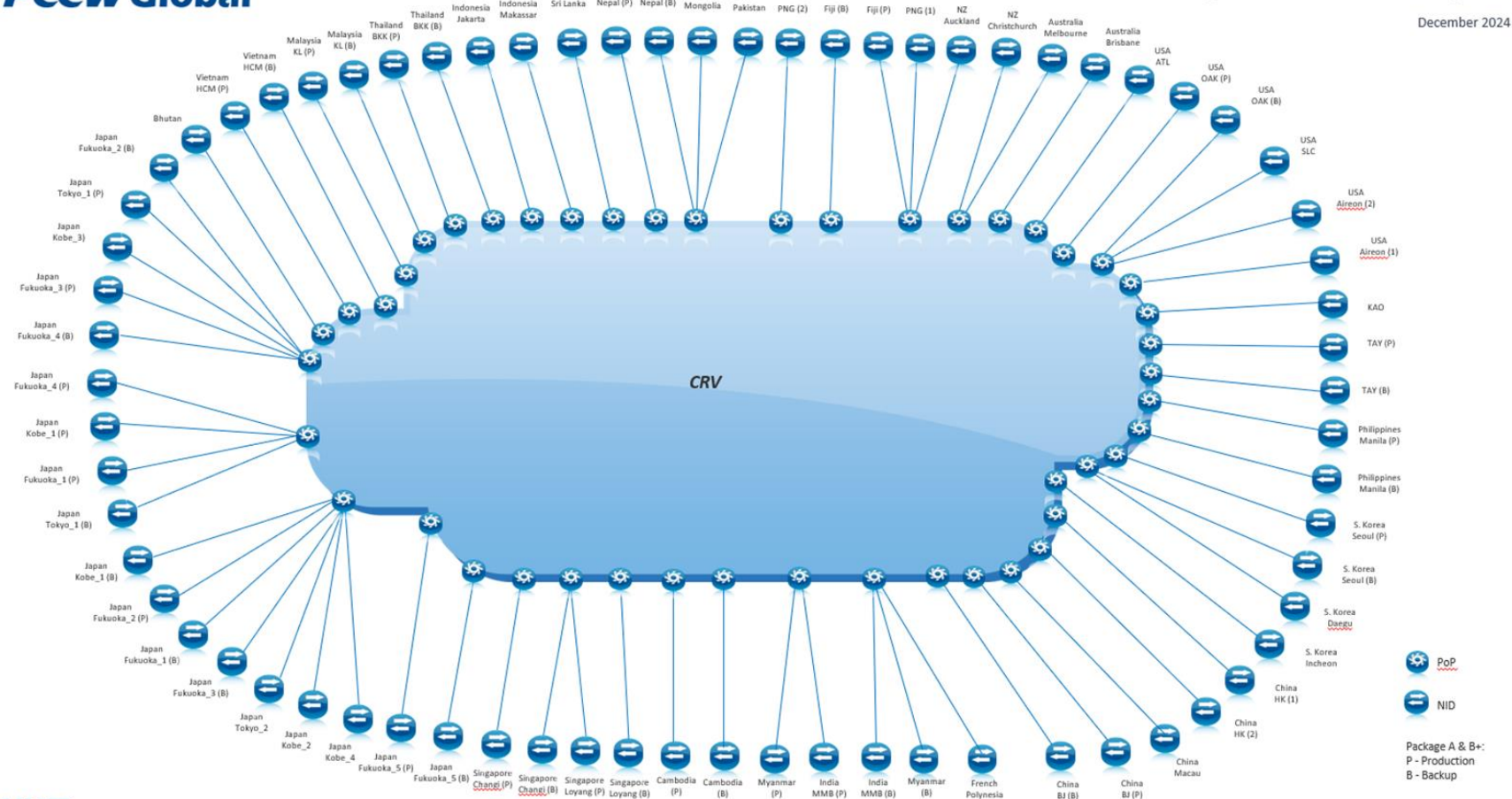
02

Constraint/Issue

- ✓ Single point of failure at the International communication network landing point in FINTEL, Suva.
- ✓ Availability of the local CRV POP instead of last mile CRV POP in Sydney
- ✓ Last mile bandwidth cost to the nearest CRV POP
- ✓ CRV cost remain high for PSIDS and small ANSP

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CRV Network

03

Desired Enhancement

- ✓ Installing the second landing point of the international submarine cabling in the western side of Viti Levu
- ✓ Extending the CRV POP to Fiji and the Pacific.
- ✓ Upgrading from CRV SLA Package B+ to Package A for SWIM and future services
- ✓ Increasing the bandwidth to meet current and future requirement like SWIM and other new services
- ✓ Implementing the local SWIM network for ANSP & Airports services.

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CRV High Level Design – Upgrade to CRV Package B+

PCCW Global® CRV Fiji – Proposed Upgrade Diagram (Package B+)
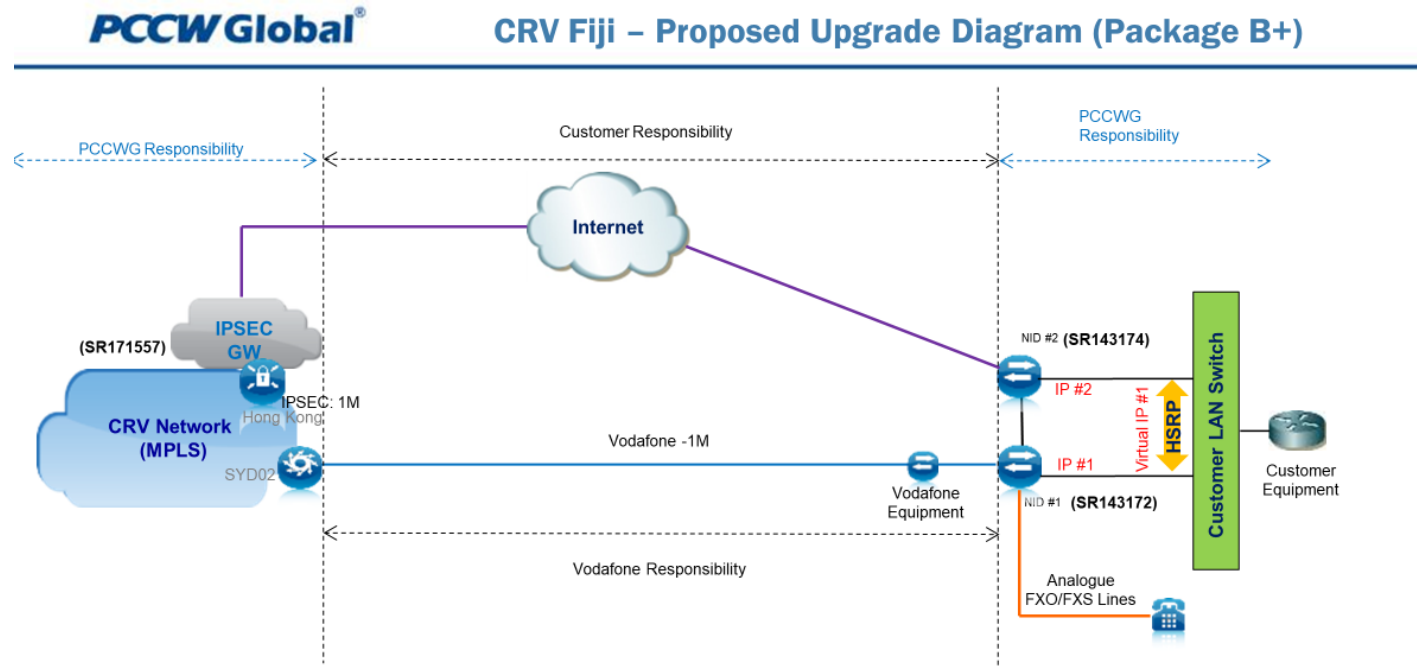
Remarks:
- Customer need to prepare a LAN Switch to connect 2 Circuits and Customer Equipment
- Customer need to add the connection(patch cable) from the 2 x NID to Customer LAN Switch
- HSRP will be configured for dual links(MPLS- active, Internet-Backup) which are in active and standby mode of operation
- Customer assign LAN IP for 2 x NID and HSRP Virtual IP
- Customer equipment will use HSRP Virtual IP as Gateway
- Customer Analog voice lines will be connected to the NID #1 (Primary link router)
- Customer need to manual fail over the Analog voice lines to NID #2 (Backup link router) in case the router failure.

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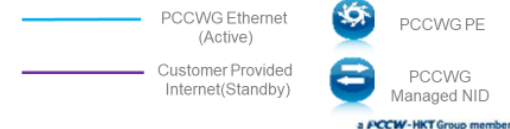
06

Conclusion

- ✓ Location of the CRV MPLS POP add to the last mile cost.
- ✓ Additional international submarine cabling landing site in the western side of Viti Levu to improve network reliability
- ✓ National & International Communication infrastructure design and architecture is critical for CRV network to operate.
- ✓ CRV network is capable to support current and future aviation services.
- ✓ CRV is a centralized network of all aviation services in the APAC region
- ✓ Reliable and cost-effective network will benefit PSIDS and small ANSP

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Thank You!