



ICAO

International Civil Aviation Organization

**Twelfth Meeting of the Common aeRonautical Virtual
Private Network Operations Group (CRV OG/12)**

Denarau Island, Fiji, 23-26 January 2024

Agenda Item 8: CRV Operational performance report
– Future bandwidth requirements

CRV BANDWIDTH UTILIZATION RATE

(Presented by PCCW Global Limited)

SUMMARY

This paper presents bandwidth utilization of each member states in 2023.

1. INTRODUCTION

1.1 The Bandwidth Utilization Report aims to provide a comprehensive understanding of how network bandwidth is utilized within the organization.

2. DISCUSSION

1.2 The Reporting Tool captures and records the average value of traffic from the NID interface at 5-minute intervals. It then averages the collected data to generate the monthly traffic report.

#	Administration	City	Circuit ID	Package	Bandwidth	Voice Channel	Dedicated Bandwidth for Voice Channel	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Aireon LLC	Washington	WAS(PCG) IP008578	C	10M	0	0	30K	30K	29K	30K	30K	29K	30K	30K	32K	37K	32K	33K
		Chandler	CNR(PCG) IP008704	C	10M	0	0	28K	28K	27K	27K	28K	28K	28K	27K	28K	28K	27K	28K
2	Australia	Brisbane	BNE(PCG) IP007485	C	2M	12	1.344M	41K	41K	46K	44K	44K	41K	40K	40K	41K	42K	44K	44K
		Melbourne	MEL(PCG) IP007486	C	2M	12	1.344M	24K	29K	27K	24K	24K	24K	24K	24K	24K	26K	26K	26K
3	Bhutan	Bhutan	PBH(TAT) IP008292	C	1M	0	0	6K	5K	6K	7K	6K	7K	6K	6K	6K	6K	6K	6K
4	China	Beijing	BEI(HKT) IP008377 (P)*	A	3M	0	0	11K	13K	14K	14K	14K	15K	15K	17K	27K	16K	17K	16K
			BEI(HKT) IP008378 (B)^		3M	0	0	11K	10K	14K	11K	10K	12K	11K	11K	13K	12K	12K	12K
5	Fiji	Nadi	NAD(PCG) IP007484 (P)*	B+	1M	4	448K	3K	3K	3K	3K	3K	3K	3K	3K	3K	3K	3K	3K
			NAD(PCG) IP007484-RSA (B)^		1M	4	448K	-	-	-	-	-	-	-	-	-	-	-	-
6	Hong Kong, China	Hong Kong#1	HKG(PCG) IP007315	C+	2M	5	560K	27K	26K	27K	33K	29K	36K	35K	40K	42K	45K	32K	28K
		Hong Kong#2	HKG(PCG) IP007316	C	2M	5	560K	30K	23K	23K	29K	24K	28K	27K	29K	26K	25K	24K	22K
7	India	Mumbai	MMB(TAT) IP009012 (P)*	B+	1M	4	448K	10K	16K	16K	16K	20K	18K	17K	18K	19K	20K	22K	10K
			MMB(TAT) IP009012-IB (B)^		1M	4	448K	15K	17K	16K	19K	20K	17K	17K	19K	18K	18K	18K	15K
8	Indonesia	Jakarta	JKT(PCG) IP008996	C	3M	20	2.24M	-	786K	788K	815K	798K	6K	11K	15K	14K	20K	22K	28K
		Makassar	MAK(PCG) IP008997	C	3M	20	2.24M	-	791K	794K	821K	804K	12K	18K	13K	16K	15K	15K	15K

(P)*: Primary Link
(B)^: Back Up Link

	Administration	City	Circuit ID	Package	Bandwidth	Voice Channel	Dedicated Bandwidth for Voice Channel	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
9	Japan	Tokyo	TOK(PCG) IP007068 (P)*	A	2M	0	0	61K	61K	61K	61K	61K	61K	61K	61K	61K	61K	61K	61K
			TOK(PCG) IP007069 (B)^		2M	0	0	17K	17K	18K	17K	17K	17K	17K	17K	17K	17K	17K	17K
		Fukuoka	FUK(PCG) IP007070 (P)*	A	2M	0	0	42K	43K	43K	43K	56K	47K	47K	47K	48K	50K	50K	51K
			FUK(PCG) IP007071 (B)^		2M	0	0	20K	20K	20K	20K	20K	20K	20K	20K	20K	20K	20K	20K
		Fukuoka	FUK(PCG) IP008382 (P)*	A	1M	4	448K	5K	7K	6K	9K	8K	7K	11K	7K	9K	8K	8K	6K
			FUK(PCG) IP008383 (B)^		1M	4	448K	3K	3K	3K	3K	3K	3K	3K	3K	3K	3K	3K	3K
		Kobe	KOB(PCG) IP008573 (P)*	A	1M	4	448K	384K	384K	384K	384K	384K	384K	384K	384K	384K	384K	384K	386K
			KOB(PCG) IP008574 (B)^		1M	4	448K	3K	3K	3K	3K	3K	3K	3K	3K	3K	3K	3K	3K
		Tokyo	TOK(PCG) IP008863	C	1M	1	112K	2K	2K	2K	2K	2K	2K	2K	2K	2K	2K	2K	2K
		Kobe	KOB(PCG) IP008864	C	1M	8	896K	2K	2K	2K	2K	2K	2K	2K	2K	2K	2K	2K	2K
		Kobe	KOB(PCG) IP008865	C	1M	7	784K	2K	2K	2K	2K	2K	2K	2K	2K	2K	2K	2K	2K
		Fukuoka	FUK(PCG) IP008881 (P)*	A	1M	8	896K	487K	487K	487K	489K	487K	488K	499K	588K	594K	588K	584K	584K
			FUK(PCG) IP008882 (B)^		1M	8	896K	2K	2K	2K	2K	2K	75K	2K	5K	2K	2K	2K	2K
		Fukuoka	FUK(PCG) IP008883 (P)*	A	1M	8	896K	479K	479K	479K	479K	479K	479K	479K	670K	670K	670K	670K	671K
			FUK(PCG) IP008884 (B)^		1M	8	896K	2K	2K	2K	2K	2K	2K	2K	37K	2K	2K	2K	2K
		Fukuoka	FUK(PCG) IP008885 (P)*	A	1M	8	896K	290K	291K	290K	290K	291K	291K	295K	580K	582K	577K	577K	581K
			FUK(PCG) IP008886 (B)^		1M	8	896K	2K	2K	2K	2K	2K	2K	2K	12K	2K	2K	2K	2K
		Kobe	KOB(PCG) IP009191	C	1M	4	448K	-	-	-	-	-	-	-	-	-	-	-	-
10	Malaysia	Sepang	KLR(PCG) IP008665 (P)*	A	2M	5	560K	8K	8K	9K	12K	12K	14K	16K	12K	12K	13K	14K	13K
			KLR(PCG) IP008666 (B)^		2M	5	560K	5K	5K	5K	5K	5K	9K	10K	6K	6K	7K	7K	7K
11	Mongolia	Ulaanbaatar	ULN(PCG) IP009181-IRA	D	2M	0	0	-	-	-	-	-	-	6K	12K	12K	12K	12K	9K

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#	Administration	City	Circuit ID	Package	Bandwidth	Voice Channel	Dedicated Bandwidth for Voice Channel	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
12	Nepal	Kathmandu	KTM(MER) IP009125 (P)*	B+	128K	0	0	-	5K	9K	5K	5K	5K	5K	5K	5K	5K	5K	5K
			KTM(MER) IP009125-IB (B)^		128K	0	0	-	0.4K	0.4K	0.4K	0.4K	0.4K	0.4K	0.4K	0.5K	0.4K	0.4K	0.4K
13	New Zealand	Auckland	AUC(TNZ) IP007482	C	1M	4	448K	22K	21K	23K	23K	21K	20K	21K	21K	21K	22K	22K	22K
		Christchurch	CHC(TNZ) IP007483	C	1M	4	448K	19K	18K	18K	18K	20K	20K	20K	20K	20K	20K	20K	20K
14	Pakistan	Karachi	KHI(PCG) IP009186	D	1M	3	336K	-	-	-	-	-	-	-	-	-	8K	11K	15K
15	Papua New Guinea	Port Moresby	POM(PCG) IP008449	C	640K	4	448K	40K	34K	33K	33K	34K	34K	34K	34K	35K	34K	34K	34K
		Port Moresby	POM(PCG) IP008450	C	640K	4	448K	38K	37K	36K	38K	37K	37K	43K	37K	58K	44K	40K	42K
16	Philippines	Pasay	PAY(PCG) IP007263 (P)*	A	2M	9	1M	72K	63K	45K	47K	67K	77K	92K	80K	90K	78K	67K	67K
			PAY(PCG) IP007264 (B)^		2M	9	1M	20K	20K	19K	23K	25K	26K	27K	26K	24K	23K	23K	24K
17	Republic of Korea	Seoul	SEL(PCG) IP007995 (P)*	A	2M	0	0	8K	8K	8K	8K	13K	13K	13K	13K	13K	13K	13K	13K
			SEL(PCG) IP007996 (B)^		2M	0	0	13K	13K	13K	12K	12K	7K	7K	7K	7K	7K	7K	7K
		Incheon	INC(PCG) IP008575	C+	2M	8	896K	578K	578K	578K	578K	578K	578K	578K	770K	771K	797K	770K	774K
		Daegu	TAE(PCG) IP008576	C+	2M	9	1M	482K	482K	494K	482K	482K	482K	482K	874K	879K	865K	865K	869K
18	Singapore	Loyang	SNG(PCG) IP007868 (P)*	A	2M	10	1.12M	42K	41K	50K	53K	63K	53K	60K	67K	71K	71K	68K	66K
			SNG(PCG) IP007869 (B)^		2M	10	1.12M	21K	22K	22K	25K	22K	22K	22K	22K	22K	22K	22K	22K
		Changi	SNG(PCG) IP007870 (P)*	A	2M	9	1M	16K	20K	25K	29K	24K	24K	29K	27K	25K	23K	28K	24K
			SNG(PCG) IP007871 (B)^		2M	9	1M	20K	21K	22K	27K	22K	22K	22K	22K	22K	22K	22K	22K
19	Thailand	Bangkok	BKK(PCG) IP008895 (P)*	A	512K	0	0	21K	20K	27K	28K	21K	21K	27K	33K	30K	32K	31K	26K
			BKK(PCG) IP008896 (B)^		512K	0	0	9K	9K	9K	9K	9K	9K	9K	9K	9K	10K	10K	10K
20	USA	Oakland	OAK(PCG) IP007608 (P)*	A	2M	9	1M	85K	30K	27K	31K	27K	29K	33K	29K	30K	27K	28K	27K
			OAK(PCG) IP007609 (B)^		2M	9	1M	18K	17K	19K	21K	18K	18K	18K	18K	18K	18K	18K	18K
		Atlanta	ATL(PCG) IP007611	C	2M	0	0	24K	31K	25K	26K	22K	22K	28K	33K	31K	25K	21K	26K
		Salt Lake	SLC(PCG) IP007610	C	2M	0	0	38K	38K	39K	38K	39K	38K	38K	38K	37K	38K	38K	39K

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3. ACTION BY THE MEETING

3.1 The meeting is invited to:

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