



Myanmar Internet Exchange

Update

Presenter :Thein Myint Khine

Version : 0.0

Update : 11 January 2023

MMIX Brief

- Since Sept 2017.
- Total 25 Members
 - 22 Peering Members
 - 17 Principal Members
 - 5 Affiliate Members
 - 3 Associate Members
- Date Center – True IDC, MICT Park
- Major Contents – 4 x CDNs
- Aggregate Traffic Peak – 100 Gbps

➤ MMIX Structure

Structure

1. Members - the governing body;
2. the Executive Council - acts on behalf of MMIX;
3. the Secretariat – daily operations and MMIX functions;
4. Sub-Committees – for specific functions;
5. Advisory Board – who shall advise MMIX;

1. Members

1. Principal Member

2. Constitutional Member

3. Affiliate Member

4. Associate Member

Member Lists

Member Name	Type	Member Name	Type
1 AGB Communication Co., Ltd.	Principal	13 Marga Global Technology	Principal
2 Southeastasianet Technologies Myanmar Co., Ltd	Principal	14 True IDC Myanmar Co., Ltd	Associate
3 Kinetic Myanmar Technology Co., Ltd.	Principal	15 RIPE NCC	Affiliate
4 Yatanarpon Teleport Public Co., Ltd	Principal	16 Myanmar Light Global Co., Ltd	Principal
5 Fortune Telecom Co., Ltd.	Principal	17 Myanmar Country Co., Ltd.	Principal
6 Horizon Telecom International Co., Ltd.	Principal	18 Ocean Wave Communication Co., Ltd	Principal
7 Connect Gateway Co., Ltd.	Associate	19 Campana Mythic Co., Ltd.	Principal
8 Myanmar Unilink Communication Co., Ltd.	Principal	20 Myanmar Broadband Telecom Ltd.	Principal
9 Amara Communications Co., Ltd.	Principal	21 Quantil Networks (Wangsu)	Affiliate
10 Myanmar Information Highway Limited	Principal	22 Myanmar Technology Gateway Co., Ltd	Associate
11 Telecom International Myanmar Co., Ltd.	Principal	23 Akamai Technologies	Affiliate
12 Spectrum Life Co., Ltd	Principal	24 Lotus Mudra Co., Ltd.	Affiliate
		25 Packet Clearing House (PCH)	Affiliate

2. Executive Council

Sr.	Name	Orgnization	Address	Title
1	Chan Mya Oo	Horizon Telecom International	Bago	Chairperson
2	Kyaw Thet Han	Myanmar Unilink	Sagaing	EC Member
3	Min Maung Soe	Myanmar Internet Exchange	Yangon	Treasurer
4	Myat Myat Soe	Yatanarpon Teleport	Mon	EC Member
5	Naing Win	Southeastasianet Technologies Myanmar	Mandalay	EC Member
6	Sai Nyan Lynn Swe	Myanmar Internet Exchange	Shan	Secretary
7	Si Thu Aung	AGB Communication	Mon	EC Member
8	Su Yee Nandar Aung	Marga Global Telecom Ltd	Taninthayi	EC Member
9	Thein Myint Khine	Myanmar Internet Exchange	Yangon	CEO

6. Advisory board

1. Posts and Telecommunications Department,
Ministry of Transport and Communications

2. Information Technology and Cyber Security
Department, Ministry of Transport and
Communications

➤ Now

Major Contents

CDNs

- Google GGC – **16 G peak**, Capacity Limited (waiting for new node)
- WangSu CDN – **4.35 G peak**
- Akamai – **71.16 G peak**
- Netflix – **1.23 G peak**

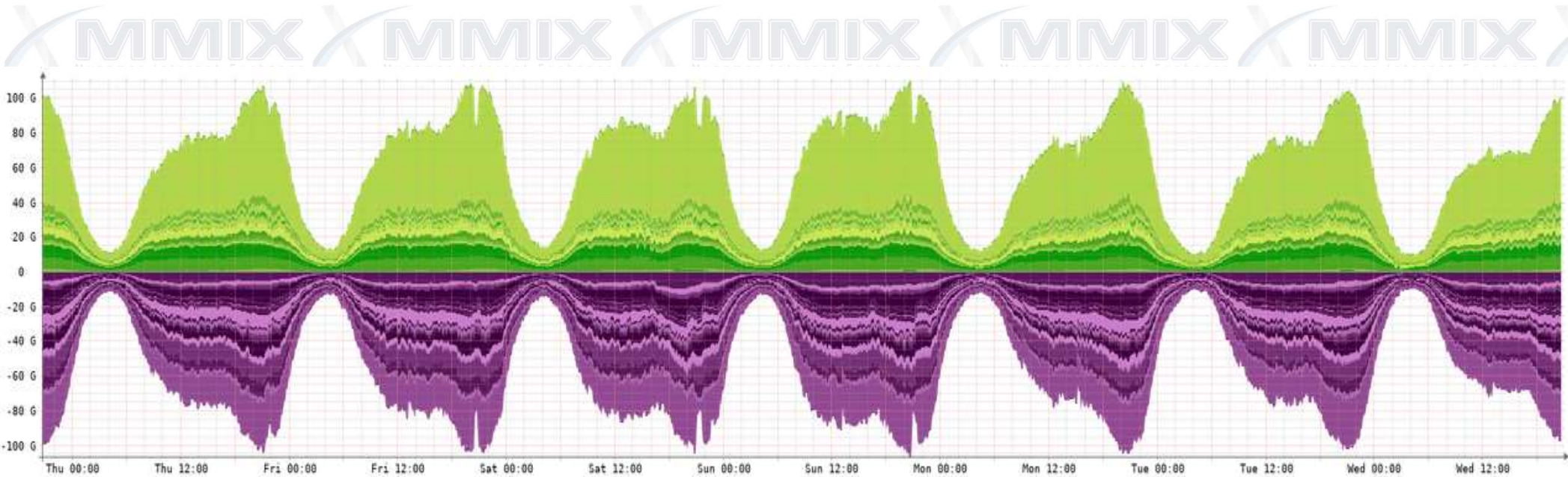
DNS Servers

- K-Root
- PCH (Country level root and various)
- MMIX DNS

Well-known Peering Contents

- Mobile Legend (MLG)

Current Traffic – Updated on 11 Jan 2023



MMIX - Pricing

Plan	Description	Max BW allowed	CDN traffic inclusive	Price (USD)
MRC-1 G	1G Port Fee	1G	1G	300
MRC-10 G	10G Port Fee	10G	5G	1,500
MRC-40 G	40G Port Fee	40G	15G	4,500
MRC-100 G	100 G Port Fee	100G	30G	8,500
MRC-C-1 G	Additional CDN 1G		1G	300

MMIX Anycast DNS structure

Anycast Authoritative DNS Structure owned by MMIX

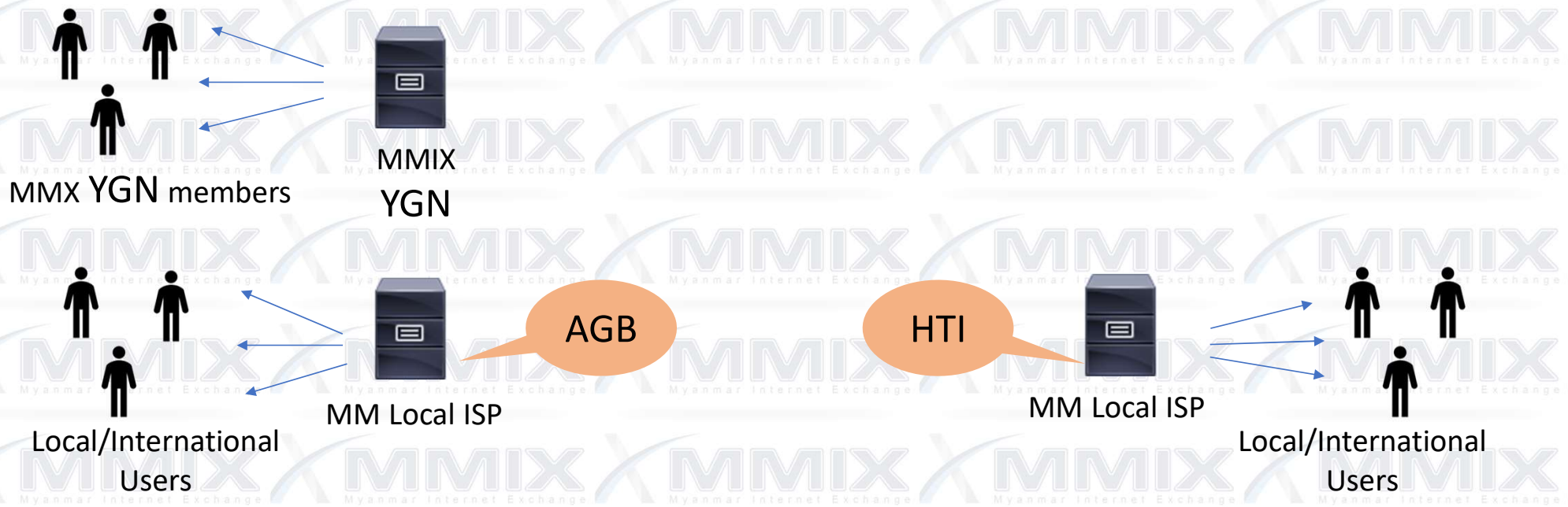
Free DNS hosting (no cost)

Available for

- Registry
- Registrar
- Registrant

Localization and Global Reach
DNS structure

MMIX Anycast DNS Platform



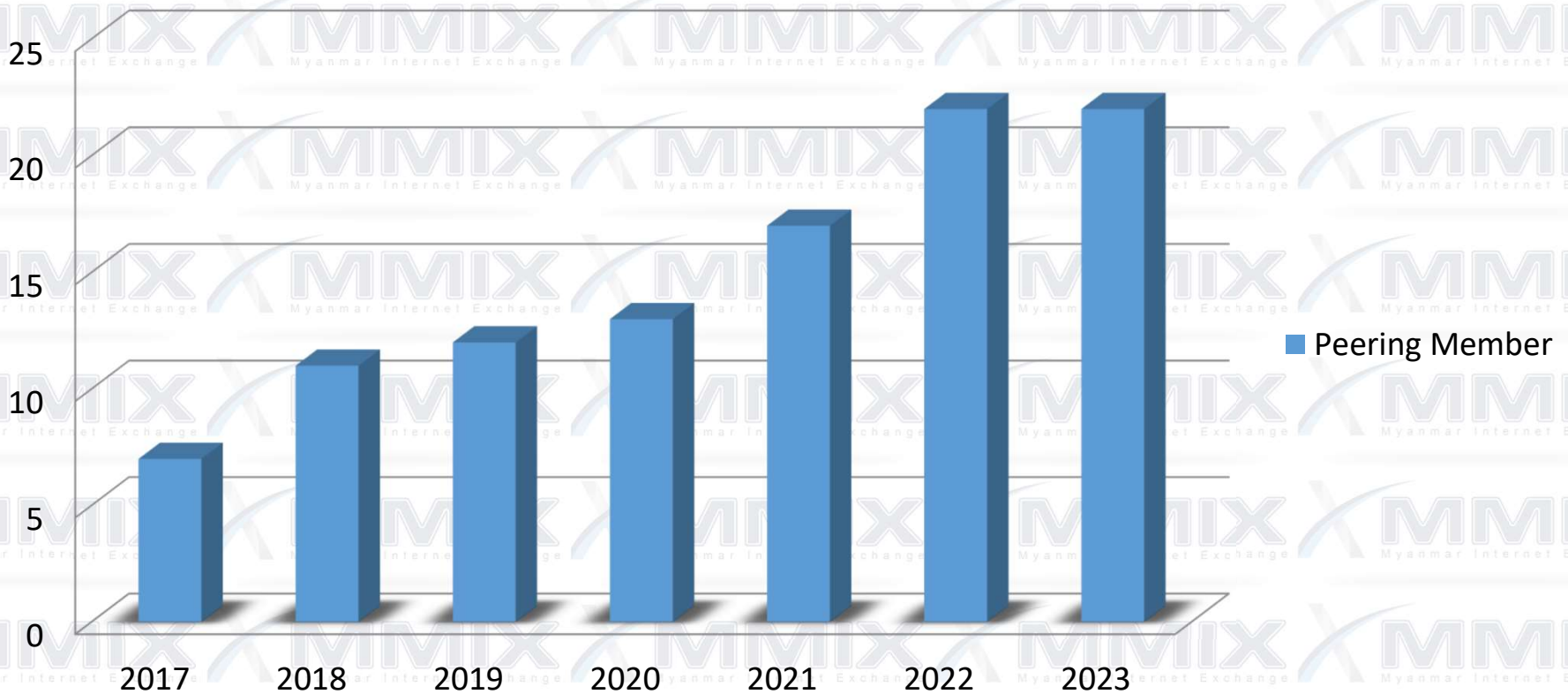
Peer Ports

Port	Number of Peers
1 G	9
10 G	7
20 G	4
40 G	1
100 G	1
Total Peering Members	22
CDN behind MMIX (GGC,OCA)	2

➤ Growth

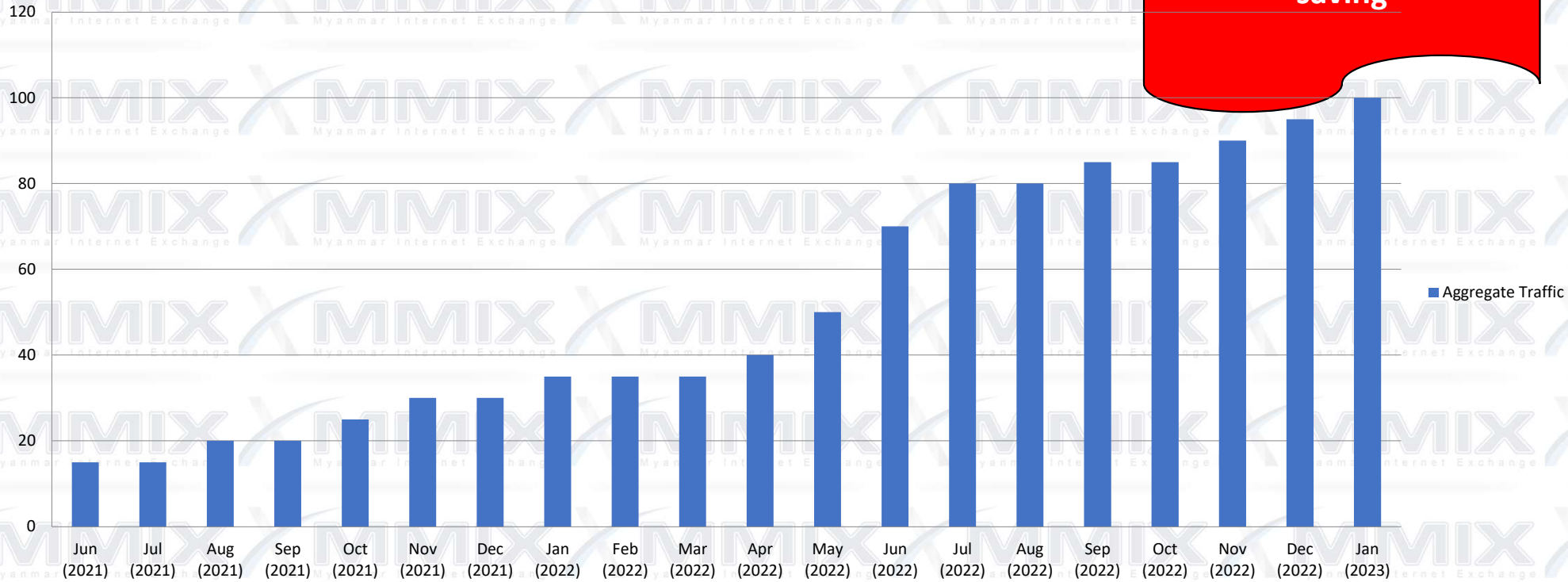
MMIX's Members Growth

Peering Member (2017-2023)



MMIX's Traffic Improvement

Aggregate Traffic(2021-2023)



~ 100G International BW saving

Port Plans and Prices

	200M	250M	500M	1G	10G	40G	100G
01-Dec-18	450			800			
01-Feb-19		450		800			
01-Jan-20			450	800			
01-Aug-20				450	1600		
01-Nov-21				300	1500	4500	8500
03-Jan-22				300	1500	4500	8500

9000
8000
7000
6000
5000
4000
3000
2000
1000
0

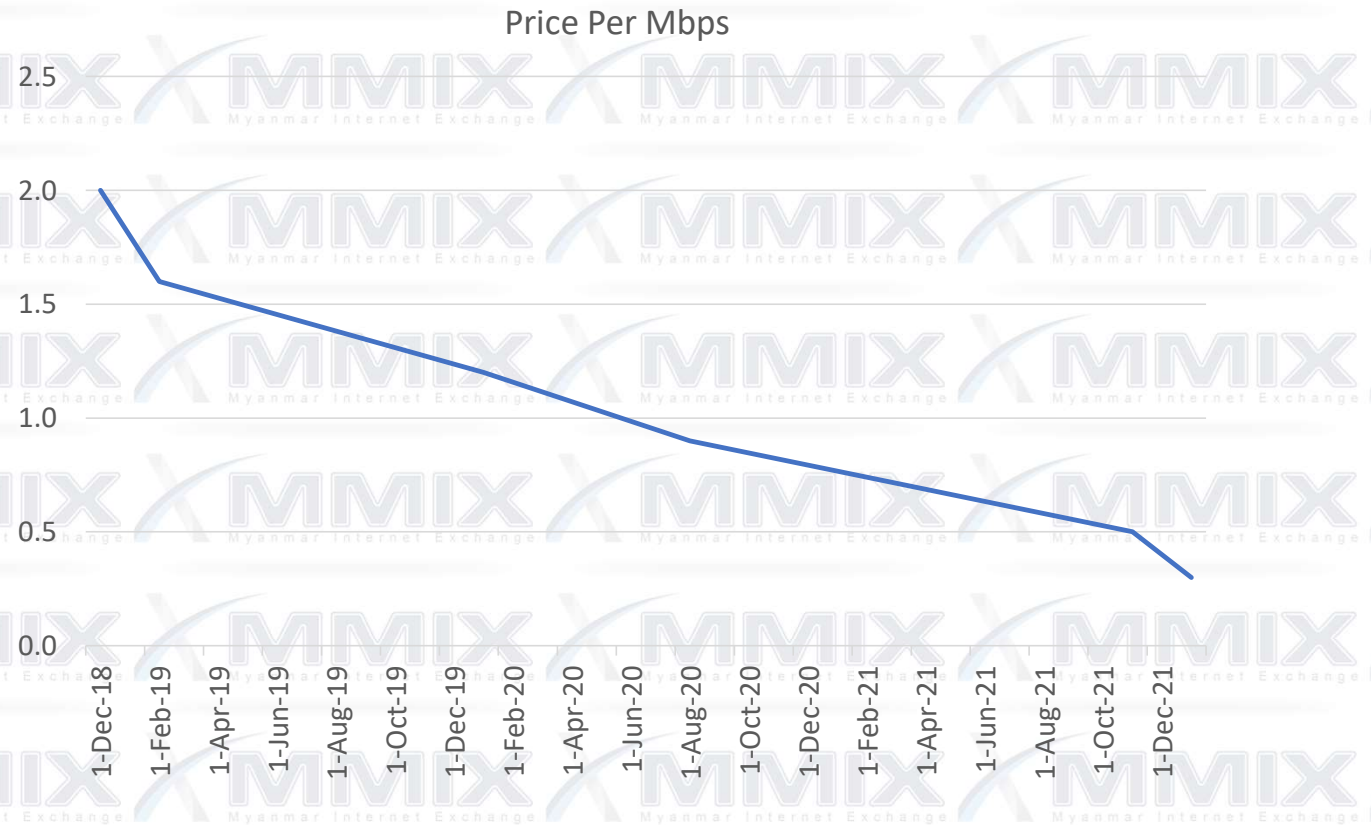
200M 250M 500M 1G 10G 40G 100G

■ 01-Dec-18 ■ 01-Feb-19 ■ 01-Jan-20 ■ 01-Aug-20 ■ 01-Nov-21 ■ 03-Jan-22

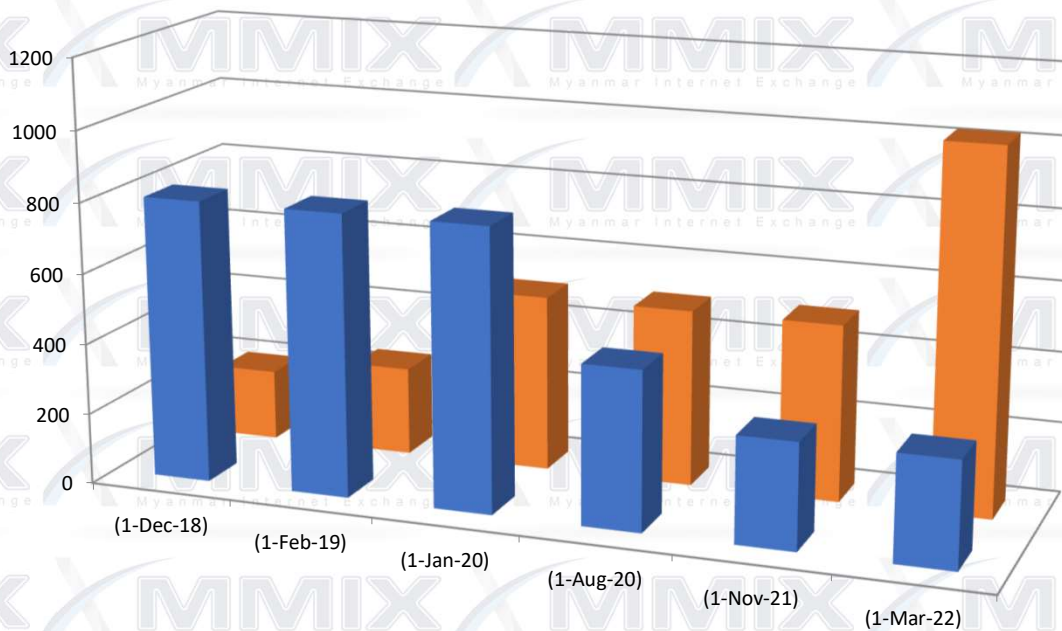
- ❖ Price are being referenced by neighbor countries.
- ❖ Higher Port Plan prices are not changing but allowing more CDN traffic.

CDN (Per Mbps) Prices

	Price Per Mbps
01-Dec-18	2.0
01-Feb-19	1.6
01-Jan-20	1.2
01-Aug-20	0.9
01-Nov-21	0.5
03-Jan-22	0.3



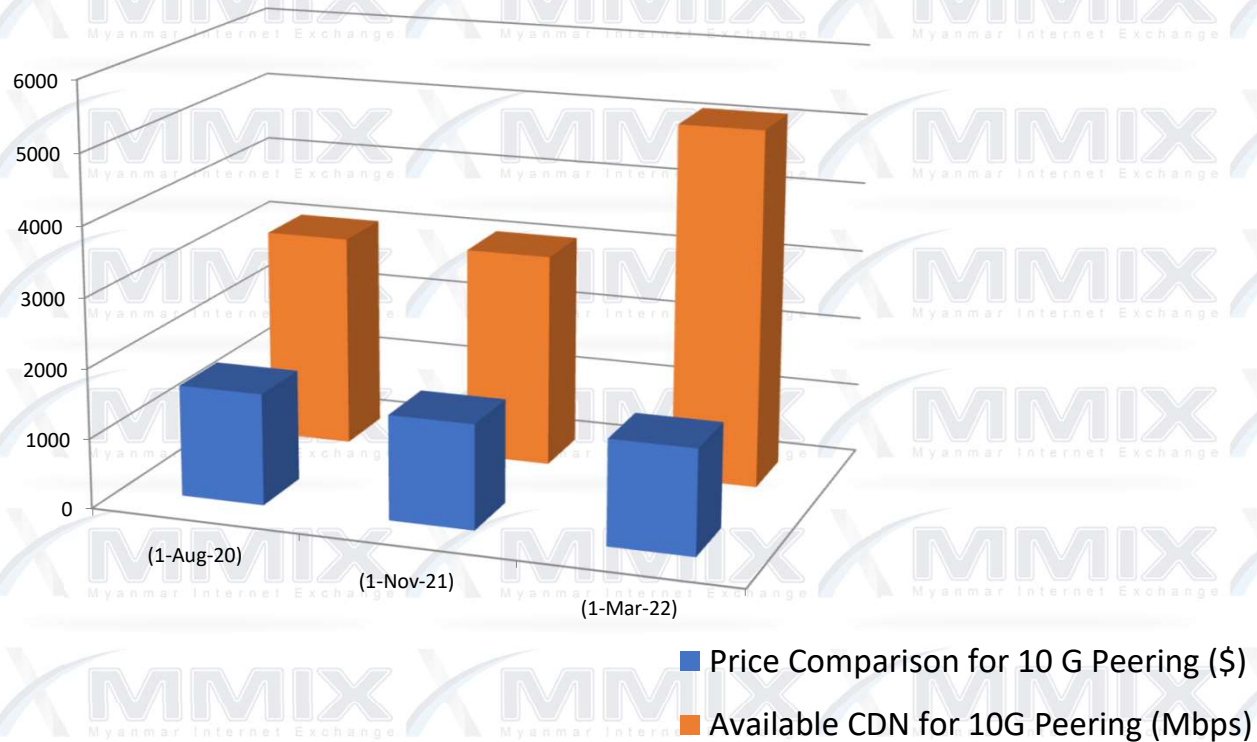
CDN and Price Changes for 1G Peering



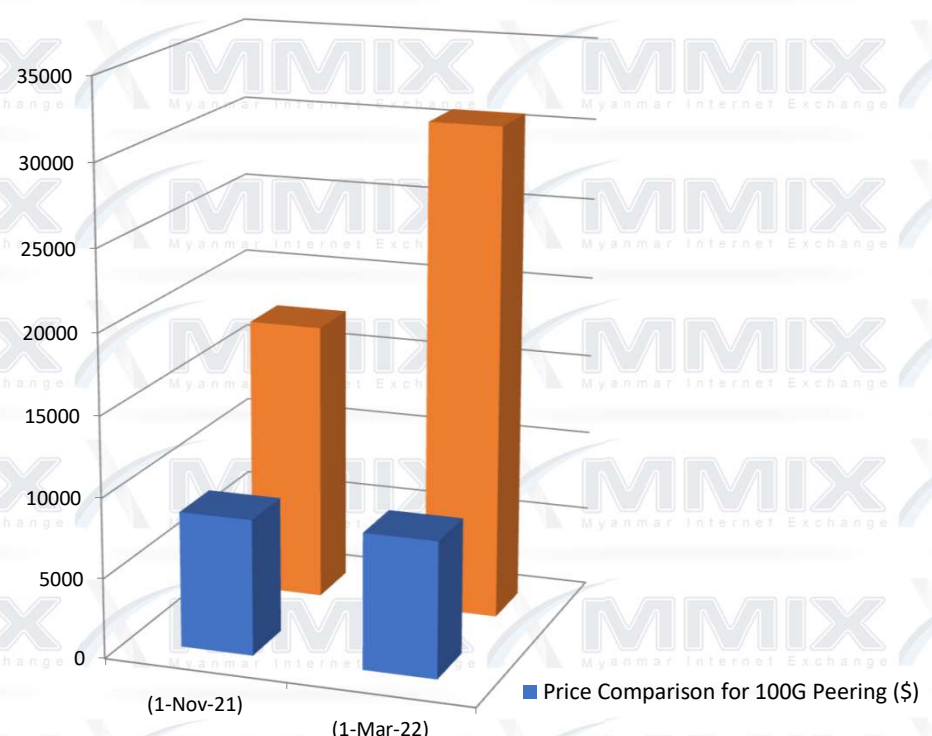
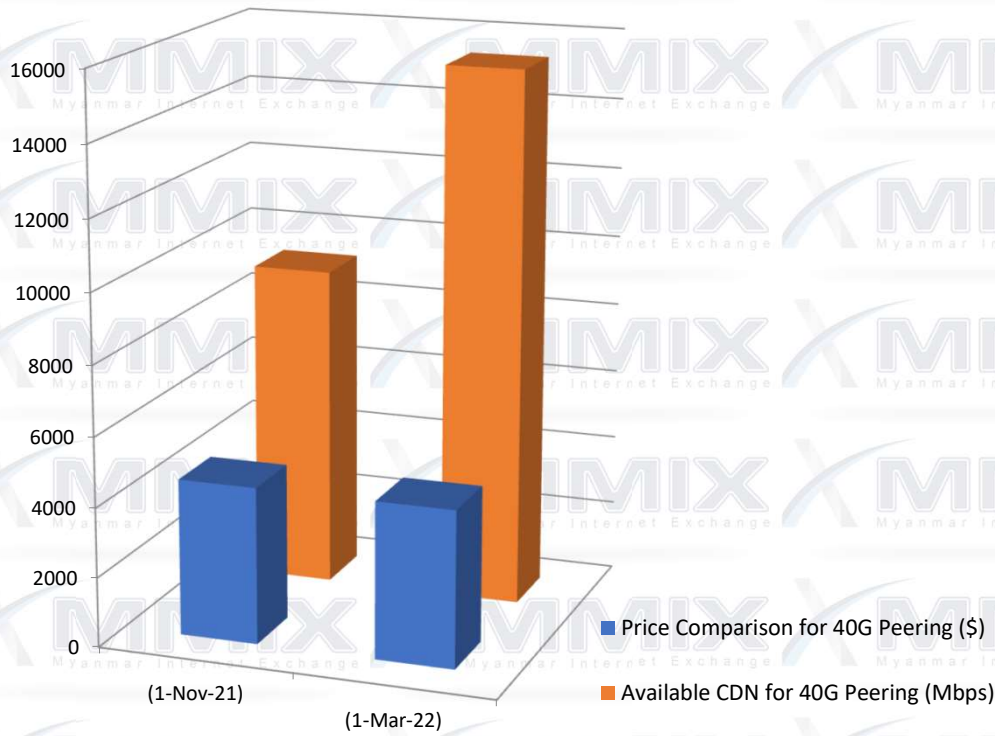
■ Price Comparison for 1G (basic) Peering (\$)

■ Available CDN for 1G Peering (Mbps)

CDN and Price Changes for 10G Peering



CDN and Price Changes for 40G and 100G Peering



➤ Future

Contents

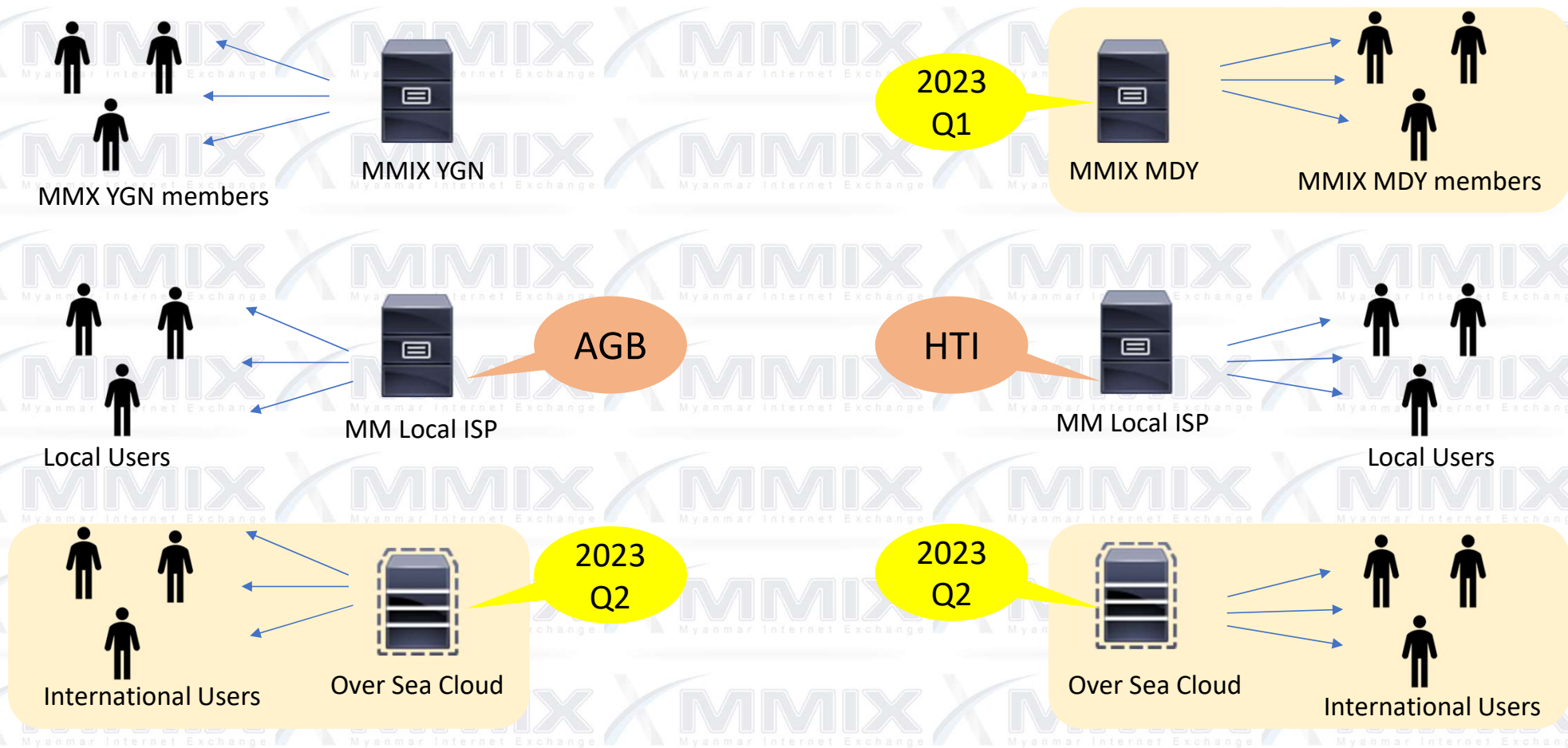
CDNs

- Google GGC Node for Mandalay IXP
- Akamai Node for Mandalay IXP
- Netflix OCA Node for Mandalay IXP

DNS Servers

- M-Root Server – waiting for processing
- MMIX Anycast DNS – Phase II

Phase II - Time Line



IXP in Mandalay

Data Centre Choice

- OceanWave New DC

Content

Google GGC – Processing

Akamai – Processing

Netflix – Processing

DNS Servers

- M-Root DNS - Processing

- MMIX owned DNS

Timeline

- February 2023

Will be in service on
February 2023

➤ Donated by

APNIC, APIX and ISOC together program

Items	Particular
Program Participants	APNIC, APIX, ISOC
Donor	ISOC, APNIC
Equipment	2 x High-end Server
Status	Ordered done, waiting for delivery

APNIC program

Items	Particular
Donor	APNIC
Equipment	1 x Server
System	M-Root DNS Server
Status	Processing

Thank you



Thein Myint Khine
MMIX

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