

**mispaiX**

## Mongolia **IX** early history

- January, 2001 ISPs meeting
  - IX Presentation from Mr. John Savageau, Pihana Pacific
- February, 2001 4-ISPs signed MoU
- 19 April, 2001 Start installation of MIX
- 25 April, 2001 MIX begin normal operation
- 25 December, 2001 MCSCCom connected to MIX
- 11 March, 2002 Micom connected to MIX
- October, 2002 5-ISPs Engineering Team agree on OpenMIX project
- 25 December, 2002 OpenMIX begin trial operation
  - Staticrouting
- 15 January, 2003 OpenMIX begin normal operation

<https://conference.apnic.net/15/sigs/ix/docs/ixpres-batsukh-mix.pdf>



# IX HISTORY

**M**ongolia **I**nternet **eX**change is a **neutral** exchange point for transfer of local Internet traffic, bypassing the US, Europe and Asia based transit providers

- ErdemNet, BodiCom, MobiCom, MagicNet, MCScom, MICOM connected to MIX
  - Leased line connection speed at **1.5Mbps-2Mbps** – **Layer 3 Router based**
  - Telco facility based
  - Commercial agreement must be sign

**25 April, 2001** MIX begin normal operation



**OpenMIX** is a non-profit exchange point for high speed transfer of local Internet traffic

MobiCom, BodiCom, MCSCom, MagicNet, Railcom and Micom connected to OpenMIX

Optical fiber connection speed at **10Mbps/100Mbps** – **Layer 2 Ethernet switch based**

ISP network infrastructure based

No commercial agreement needed

Route exchange via BGPv4 or Static

**15 January, 2003** OpenMIX begin normal operation



# IX HISTORY

**NDC MIXX** Decision for establishment by of government of Mongolia in 2009

OpenMIX switch capacity was consumed fully and free ports run out

**From Sep 2010 connectivities had started getting moved to MIXX**

**layer 3 based**

**All ISPs are connected to MIXX. Contract based with port fee**

Cisco Nexus 7010 32x10GE, 192x1GE optic and copper port

Interconnection points: National Data Center, Gemnet(Boldsoft switch), Mobicom, Railcom, NETCOM

**MISPA IX - started in 2011**

Purpose : To establish an IX in the country with proper L2 IX,

Separate local traffic from the Internet traffic load

In 2010 Cisco 6509 switch configuration and tests

**In Oct 2012** Cisco Nexus 7010 32x10GE, 96x1GE optic and copper port



# TIMELINE

## 2012- 2014

New switch Cisco Nexus 7010  
BIRD route server deploy,  
Looking glass, guide etc

## 2017-2019

APNIC TA, CRC support,  
new ASN, ipv6 address

## 2010

A VLAN configuration on  
Gemnet Layer2 switch for  
local traffic exchange

## 2015 - 2016

CRC encouraged local ISPs  
to get connected to MISPA-  
IX.  
Discussions and tests were  
run with NDC-MIXX service  
redundancy

## 2020 2024

Covid 19, traffic increase,  
faulty equipment, SLA!!!  
new switch, second  
location, APNIC  
Foundation grants



# MISPA-IX Members Information

Number of Members - 14, Total IPv4 Prefixes - 370

Provider	As Number	Peering IPv4 Address	Peering IPv6 Address	GE Link(s) to MISPA-IX	10GE Link(s) to MISPA-IX	IPv6 status	STATUS	Prefixes
PCH	AS42	103.8.60.35	2401:d600:0:aa::35		Y		ACTIVE	
PCH	AS3856	103.8.60.36	2401:d600:0:aa::36		Y		ACTIVE	
M-Root	AS7500	103.8.60.33	2401:d600:0:aa::33		Y	UP	ACTIVE	
Rackcorp	AS56038	103.8.60.29	2401:d600:0:aa::29		Y		ACTIVE	
Univision	AS17882	103.8.60.12	2401:d600:0:aa::12		Y	UP	ACTIVE	
Skymedia	AS10219	103.8.60.9	2401:d600:0:aa::9		Y		ACTIVE	
Mobicom	AS55805	103.8.60.24	2401:d600:0:aa::24		Y	UP	ACTIVE	
Mobinet	AS9484	103.8.60.26	2401:d600:0:aa::26		Y		ACTIVE	
Kewiko	AS56293	103.8.60.11	2401:d600:0:aa::11		Y	UP	ACTIVE	
Ondo	AS141681	103.8.60.39	2401:d600:0:aa::39		Y		ACTIVE	
Comtel	AS58598	103.8.60.17	2401:d600:0:aa::17	Y			ACTIVE	
Micom	AS9934	103.8.60.22	2401:d600:0:aa::22	Y			ACTIVE	
Erdemnet	AS10076	103.8.60.27	2401:d600:0:aa::27		Y	UP	ACTIVE	
Gnet	AS24496	103.8.60.23	2401:d600:0:aa::23		Y		ACTIVE	
G-Mobile	AS24559	103.8.60.19	2401:d600:0:aa::19	Y			ACTIVE	
Topica	AS10109	103.8.60.28					INACTIVE	
Magicnet	AS45237	103.8.60.25					INACTIVE	
Railcom	AS24320	103.8.60.16					INACTIVE	
Citinet	AS38805	103.8.60.15					INACTIVE	

Last Updated on 28-Oct-2024





## MISPA-IX Member meeting





## MISPA-IX Member meeting





# Төхөөрөмжийн мэдээлэл

Харилцан холболтын төхөөрөмж

- **Arista DCS-7050SX3-48YC8**

Max 100GbE Ports	8
Max 50GbE Ports	16
Max 40GbE Ports	8
Max 25GbE Ports	8
Max 10GbE Ports	56
Max 1GbE Ports	48
Throughput:	<b>4Tbps</b>

## **BIRD route servers:**

- 2 servers for redundancy
- BIRD version - 2.0.8
- Configured prefix filtering based on IRR data, using bgpq4
- Sessions with RPKI validator caches for ROV




## **Холбогдох боломжтой портууд:**

- 100GBASE-LR4
- 10GE LR
- 1GE LX, TX

## **BGP Looking glass:**

- Open to public/member access :  
<https://mispalg.mispa.mn>
- Alice Looking Glass v6
- Route information from both route servers



 Alice  
Your friendly BGP  
looking glass.

ROUTE SERVERS

rs1.mispa.mn  
bird 2.0.8

rs2.mispa.mn  
bird 2.0.8


rs1.mispa.mn





Filter by Neighbor, ASN or Description


Go to: Established Down

BGP SESSIONS ESTABLISHED

Neighbor	ASN 	State	Uptime	Description	Routes Recv.	Routes Filtered
103.8.60.35	42	up	6 months	PCH AS42 DNS Server	60	0
103.8.60.36	3856	up	7 months	PCH AS3856 DNS Server	1	0
103.8.60.33	7500	up	7 months	M-Root DNS Server	1	0
2401:d600:0:aa::33	7500	up	7 months	M-Root DNS Server	0	0
103.8.60.26	9484	up	7 months	Mobinet	89	1
103.8.60.22	9934	up	14 days	Telecom Mongolia	3	0
2401:d600:0:aa::27	10076	up	a month	ErdemNet	0	0
103.8.60.27	10076	up	a month	ErdemNet	0	0
103.8.60.9	10219	up	7 months	Skymedia	32	0
2401:d600:0:aa::12	17882	up	7 months	Univision	0	0
103.8.60.12	17882	up	7 months	Univision	137	1
103.8.60.23	24496	up	7 months	Gnet	9	1
103.8.60.19	24559	up	2 days	G-mobile	7	0
103.8.60.41	55342	up	23 days	Homenet	430	429
2401:d600:0:aa::24	55805	up	7 months	Mobicom	0	0
103.8.60.24	55805	up	7 months	Mobicom	14	0
103.8.60.29	56038	up	5 months	RackCorp	1	0
103.8.60.11	56293	up	2 months	Kewiko	2	0
2401:d600:0:aa::11	56293	up	6 months	Kewiko	0	0
103.8.60.17	58598	up	7 months	Comtel	40	39
103.8.60.20	58625	up	9 days	GmobileNet	5	4
103.8.60.40	58726	up	2 months	Isatcom	2	0
103.8.60.14	134356	up	3 minutes	MNBC	3	0
103.8.60.39	141681	up	4 months	ONDO	7	0
103.8.60.42	151355	up	19 days	GeneralTech	383	381

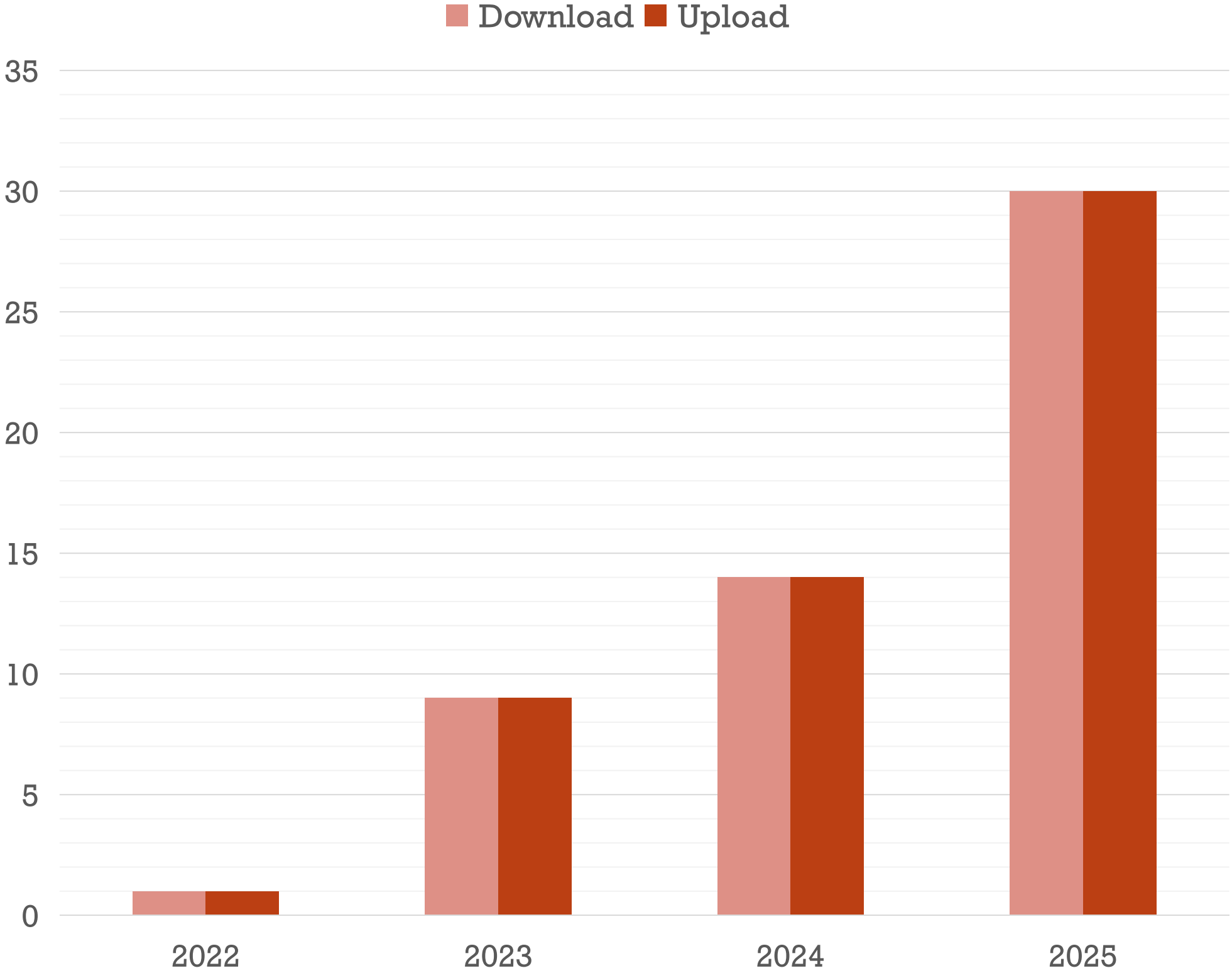
 Last Reconfig: **Friday, February 14, 2025 5:08 PM**

 **Daemon is up and running**

 Generated **5 minutes ago**.  
Next refresh **in a minute**.



# Traffic History /Gbps/





EXPORT

Organization	Gemnet LLC
Also Known As	MISPA-IX
Long Name	MISPA internet exchange point
City	Ulaanbaatar
Country	MN
Continental Region	Asia Pacific
Service Level	Not Disclosed
Terms	Not Disclosed
Last Updated	2024-03-27T09:30:17Z
Notes ?	

Contact Information

Company Website	https://mispalg.mispa.mn
Traffic Stats Website	
Technical Email	support@mispa.mn
Technical Phone ?	+97670160055
Policy Email	support@mispa.mn
Policy Phone ?	
Sales Email	
Sales Phone ?	
Health Check	

LAN

Payload MTU	1500
IX-F Member Export URL Visibility	Private

Prefixes

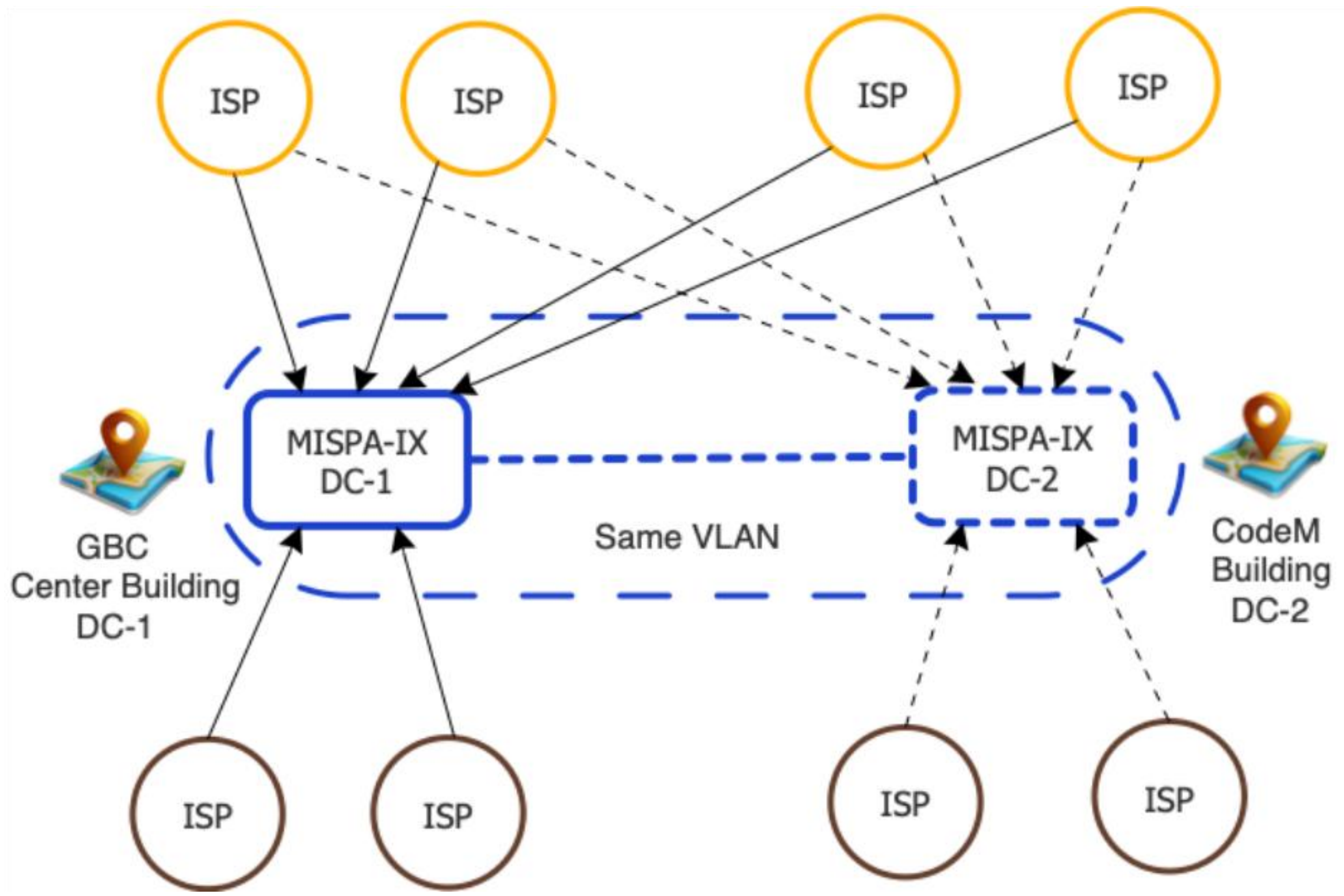
Protocol	Prefix
IPv4	103.8.60.0/24

Peers at this Exchange Point

Filter

Peer Name <div>⌵</div> IPv4	ASN IPv6	Speed Port Location	Policy ?
GNET Mongolia 103.8.60.23	24496	10G	Restrictive
Kewiko 103.8.60.11	56293 2401:d600:0:aa::11	10G	Selective
M-ROOT DNS Server 103.8.60.33	7500 2401:d600:0:aa::33	1G	Open
MISPA IXP Route Servers 103.8.60.6	24064		Open
MobiCom Corporation 103.8.60.24	55805 2401:d600:0:aa::24	10G	Selective
PCH AS3856 103.8.60.36	3856 2001:df3:a340:8::36	10G	Open
PCH AS42 103.8.60.35	42 2001:df3:a340:8::35	10G	Open
RackCorp 103.8.60.29	56038 2401:d600:0:aa::29	10G	Open





**Looking Glass: [www.mispalg.mispa.mn](http://www.mispalg.mispa.mn)**

**NMS: [librenms](#)**

**Website:**

**Mailing list:**

**Contact info: [info@mispa.mn](mailto:info@mispa.mn)**

**[support@mispa.mn](mailto:support@mispa.mn)**

**NOC: 77100055 24x7**

**<https://www.peeringdb.com/ix/2407>**







# Thank you!

[info@mispa.mn](mailto:info@mispa.mn)

