



# Peering Opportunity with MMIX

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Myanmar Internet Exchange



# About MMIX

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# Objects

- to provide IP peering facilities via **open, neutral, industrial owned** Internet Exchange Point.
- to provide **add-on** services which are common requirement.
- To promote **Local Content** hosting locally in Myanmar.

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# About MMIX

- In service since **September 2017**. (1 year and 8 months old)
- Member/participant of **APNIC**, **APIX** and **MANRS**
- **12** Peering Members + 4 Associate Members (total 16)
- About **10Gbps** Aggregate Traffic.
- Data Center is at **True IDC**, Yangon.

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**MMIX Services**

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# MMIX Services

- Providing L2 Peering Infrastructure
- Addon Services over Peering Infrastructure
  - Route Servers
  - Looking Glass
  - **Route Validator - RPKI**
  - CDNs
  - DNS Root Servers
  - RTBH
  - Other relevant services

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# How to connect MMIX

Documentation:

*Membership form, By-laws, Agreement.*

Payment:

*OTC, MRC*

Transmission:

*Owned effort by Member up to MMIX's demarcation Point.*

Peering:

*Update Peering DB, setup BGP sessions with Route Servers or Peers.*

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# Demarcation Points of MMIX POP (TrueIDC)

Cross Connect:

*If member's network already arrive in True DC.*

Meetme Room:

*Shall allow up to fiber 2 cores from Meetme to IX Rack or Member's rack.*

Outdoor Cabinet near Gate 3:

*Shall allow up to fiber 2 cores from Cabinet to IX Rack or Member's rack.*





# Information for Tentative Members

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# DC Choice for Content Providers

DC of MMIX POP

True IDC, MICT Park, Yangon

DC of MMIX Members

YTP Data Center – MICT Park, Yangon

AGB Communication – Hlaing Tharya, Yangon

Horizon Telecom – MS2 Tower, Yangon

Other DCs already reached network of MMIX members.

Myint & Associate – Pyi Road, Yangon

GTMH Telecom – East Dagon, Yangon

MICTDC – MICT Park, Yangon - New

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# Telecom License – <https://ptd.gov.mm>

1-April-2019 - update

| License                                 | No. of Issued |
|---|---------------|
| Nationwide Telecommunications           | 4             |
| Network Facilities Service (Individual) | 67            |
| Network Service (N)                     | 17            |
| Network Facilities Service (Class)      | 60            |
| Application Service (A)                 | 31            |
| <b>Total</b>                            | <b>179</b>    |

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# To Cross Border and Service in Myanmar

Need:-

- **Nationwide** Telecommunications License (Or)
- Network Facilities Service (**Individual**) plus additional International Gateway (**IGW**) License.

So far, there are total **17** IGW license holders.

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# MMIX's Messages

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# MMIX Messages

Participation of Technical Strong persons, MMIX

- ever updates new technologies.
- follows industrial standard

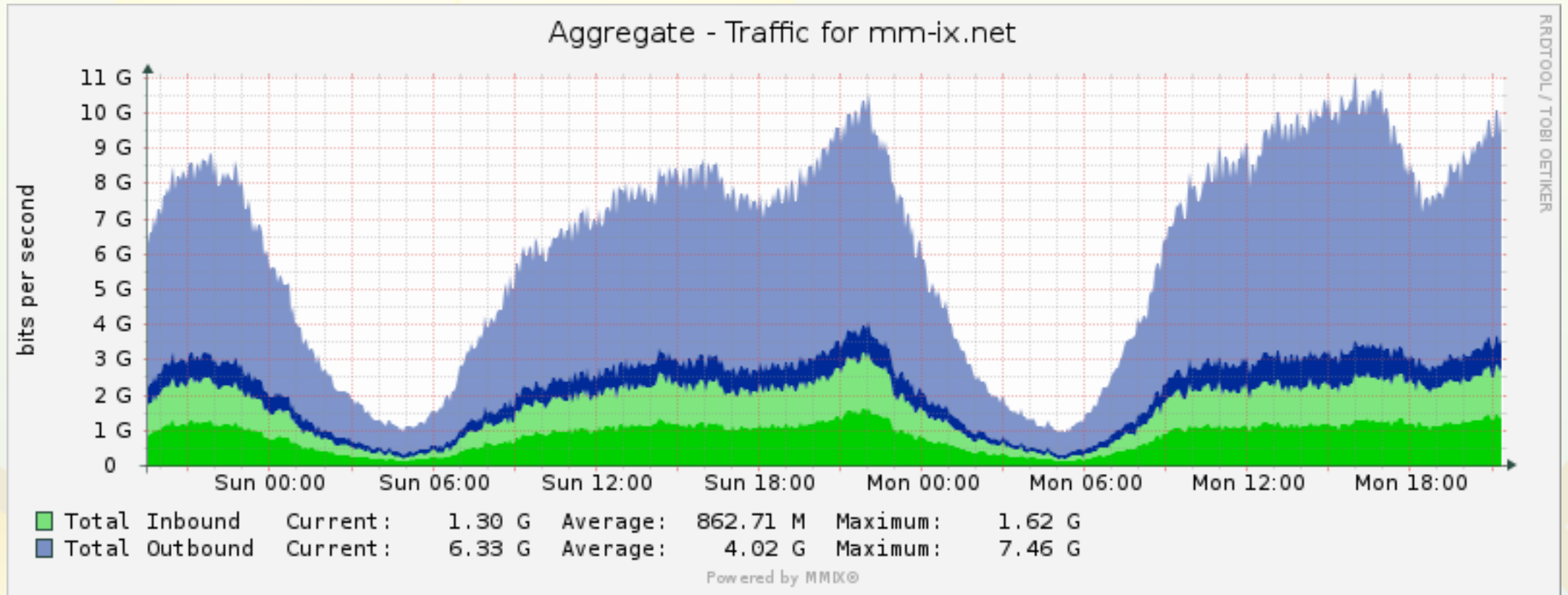
RPKI ready and in service.

- Dropping RPKI invalid routes

MMIX shall be V6 ready in this year 2019


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# Traffic Graph at home of <http://www.mm-ix.net>



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# RPKI Valid at http://lg.mm-ix.net



Myanmar Internet Exchange Looking Glass  
lg.mm-ix.net

rs1.mm-ix.net (IPv4) » Member 1 - peer 1 - AGB-1

Go to: Accepted

ROUTE SERVERS

MMIX-YGN

rs1.mm-ix.net (IPv4)  
Bird 2.0.4

rs2.mm-ix.net (IPv4)  
Bird 2.0.4

RPKI Valid

ROUTES ACCEPTED

Showing all of 7 routes

|     | Network          | Gateway        | Metric | AS Path       | Origin |
|-----|------------------|----------------|--------|---------------|--------|
| 🔍 ★ | 103.200.132.0/22 | 103.116.194.11 | 100    | 134739        | IGP    |
| 🔍 ★ | 103.200.133.0/24 | 103.116.194.11 | 100    | 134739        | IGP    |
| 🔍 ★ | 103.200.134.0/24 | 103.116.194.11 | 100    | 134739        | IGP    |
| 🔍 ★ | 103.200.135.0/24 | 103.116.194.11 | 100    | 134739        | IGP    |
| ✅ ★ | 103.83.188.0/22  | 103.116.194.11 | 100    | 134739 136210 | IGP    |
| 🔍 ★ | 121.54.164.0/22  | 103.116.194.11 | 100    | 134739        | IGP    |

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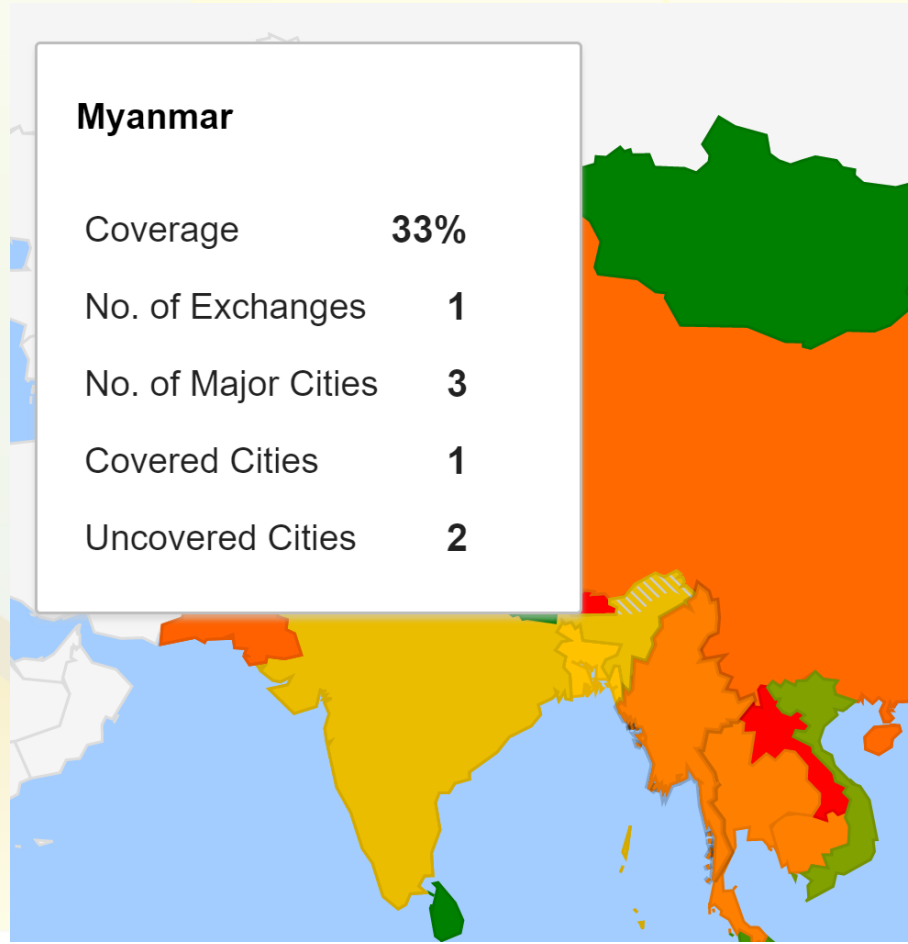




# MMIX's Future

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# MMIX Service Coverage



Yangon – covered

Mandalay – Not Yet

Naypyitaw – Not Yet

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# Exchanges and POPs

## YANGON:

Shall extend existing Exchange to multiple POPs  
*(depend on Customers' demand & Budget)*

## MANDALAY:

Shall be 2<sup>nd</sup> MMIX Exchange in near Future.

## NAYPYITAW:

Shall be remote Peering or extend POP of Yangon and Mandalay.  
*(Shall be in line with the development of E-Government and E-Commerce)*

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# MMIX Peering Forum and MMNOG Event

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# PEERING FORUM 2019



on 2-5 May, in Yangon

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# Peering Forum and MMNOG 2020 Event

Shall be in **Mandalay**  
2<sup>nd</sup> Largest City of Myanmar

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# Thank You

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