Operations Report

April 25, 2019

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Changes in Past Year

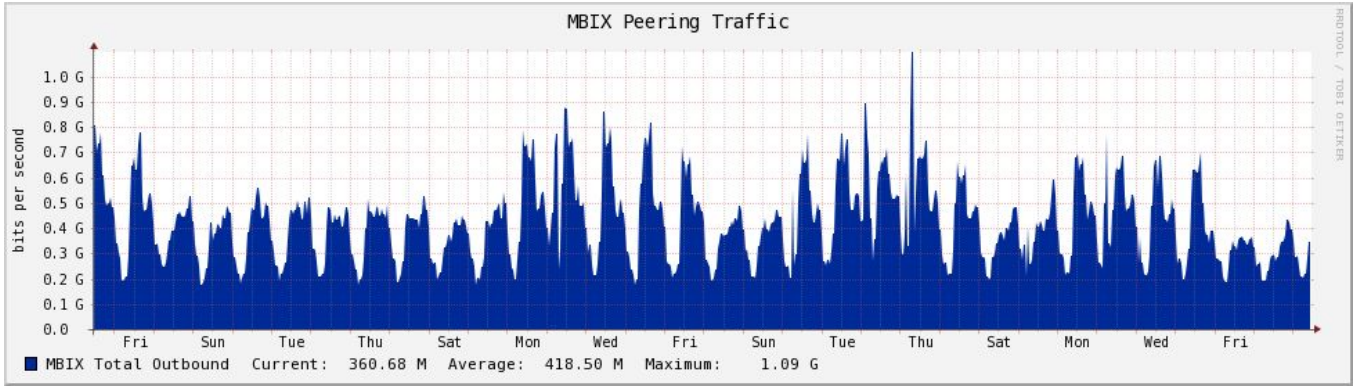
- 4 New Connected Members / Peers
  - Full Throttle
  - Nutrien
  - Hextet Systems
  - Broadband Communications North
- 2 Installing
  - High Speed Crow
  - MERLIN
- 3 New Route Servers
  - New Supermicro Servers at 3 locations
- 1 New Location
  - Expansion to 360 Portage Ave (MHT Datacenter)

Outages/Incidents in the past year

- New switching hardware migration
  - Additional Nexus 9K @167 Lombard (GSC)
  - Migration to new Nexus 3K @294 Portage (LES.NET)
- New Route Server migration
  - Graceful, no outage
- Power failure incidents at 294 Portage
  - 294P members affected only
  - 3 incidents, 8 hours total outage in 2018

MBIX By The Numbers

- Connected members: 28 (+5) ** Installing members: 2
- Lost members: 1 (Akamai)
- 1 Gb ports: 14
- 10 Gb ports: 21
- Port capacity: 224 Gbps (+32)
- Daily Peak: ~ 1 Gbps (-1)



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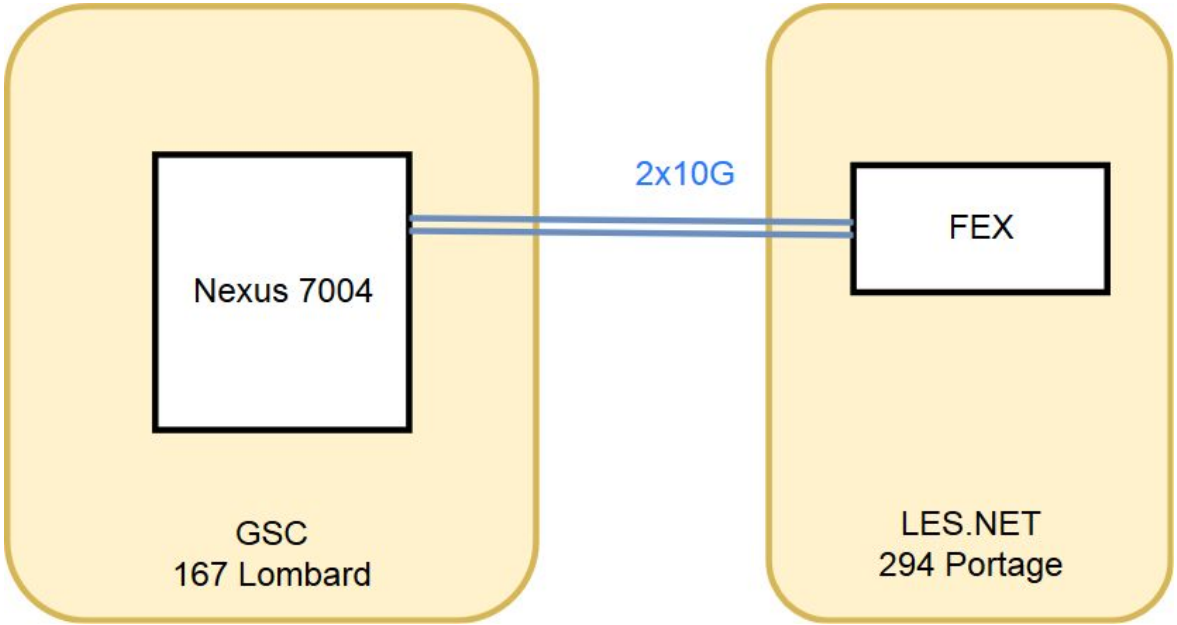
New Switching Hardware

- New Cisco Nexus 93180YC-EX
  - Donated by CIRA
  - Installed at GSC to replace Nexus 7004 (slow migration)
- Purchased 3 used Cisco Nexus 3064-X
  - Replace Fabric extender (FEX) at 294 Portage
  - New node at 360 Portage (MHT)
  - One warm spare
- 40 G links
  - MBIX received 2 dark fibre pairs to link 3 sites
  - Using 40G LR4 optics between sites

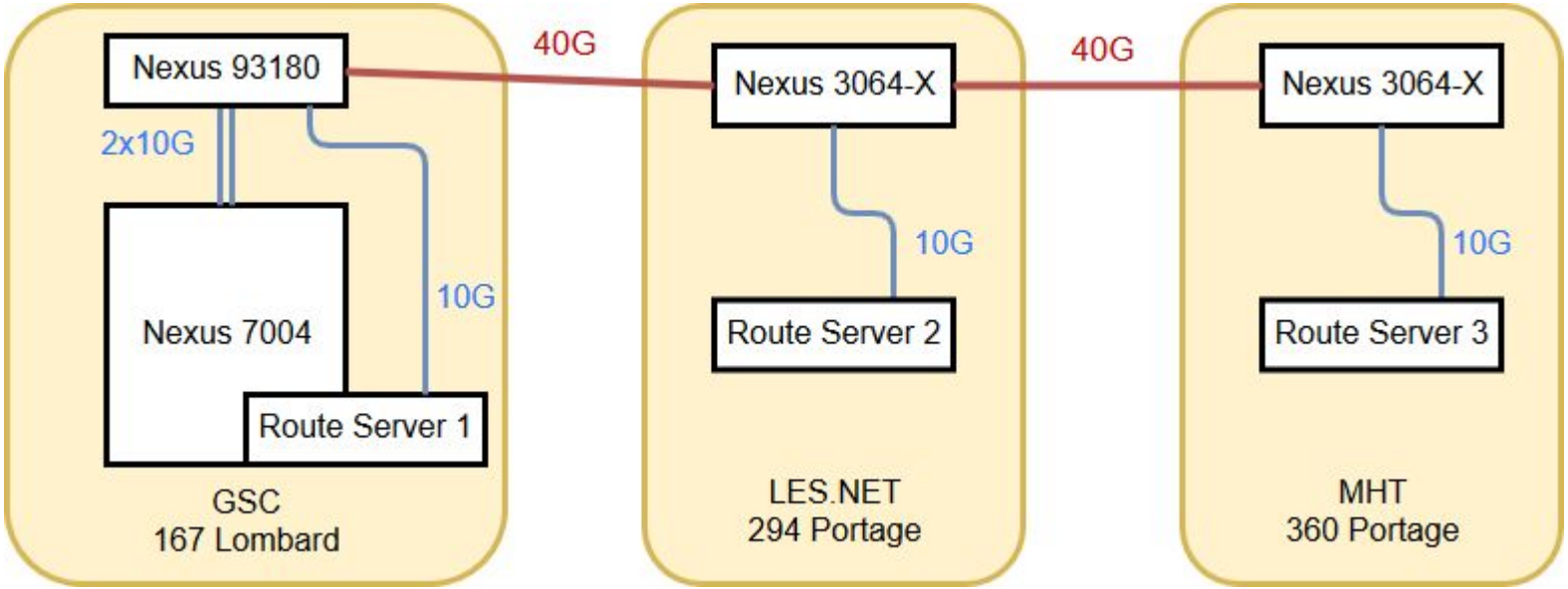
New Route Servers

- 3 Supermicro AMD 1U servers
  - 2 active, 1 spare
  - 1 at each location
- 10G link into peering fabric
- ‘arouteserver’ software generates configuration
  - Updates filter lists based on IRR data
  - IRR data found on members PeeringDB entry
  - ARIN-WHOIS data also used
  - lg.mbix.ca - good way to browse the data

MBIX 1.0 Network (pre-2018)

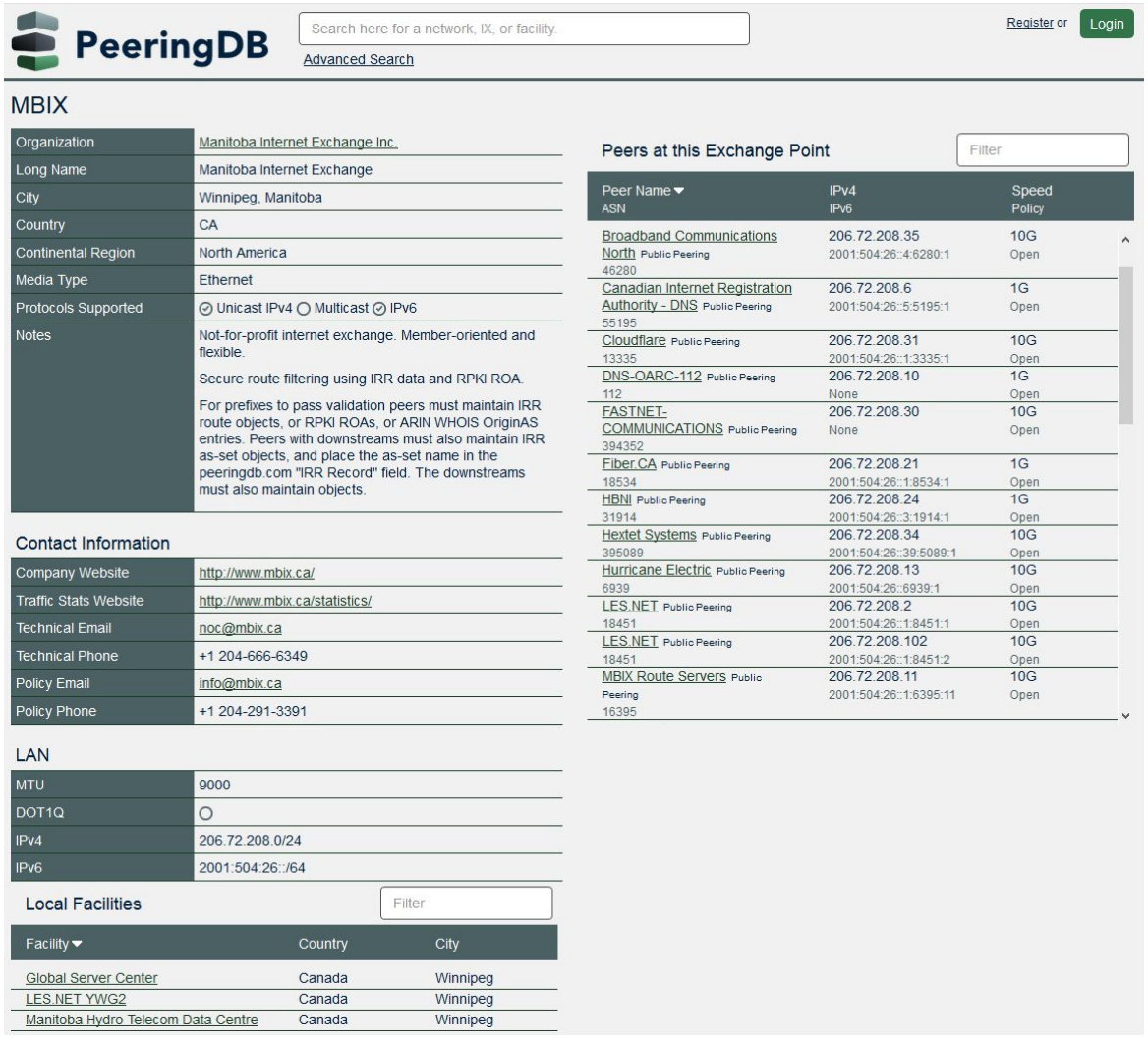


MBIX 2.0 Network (2018)



Use PeeringDB

- Free
- Meet new peers
- Contact peers
- Peering locations



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Use IRR - Internet Route Registries

MBIX now uses IRR data to verify routes being received by its members. The entire industry is concerned about bad routes being shared--IRR helps.

Despite limitations, IRR is today's best method of route authority.

If you run BGP, you should maintain your own IRR objects.

- MBIX filters peers *automatically* using IRR data (No LOAs)
- Use ARIN IRR -- it's free
- Many tools exist to make IRR useful to you

Questions?

The End