



# LINX Update

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LINX™

# What is LINX?

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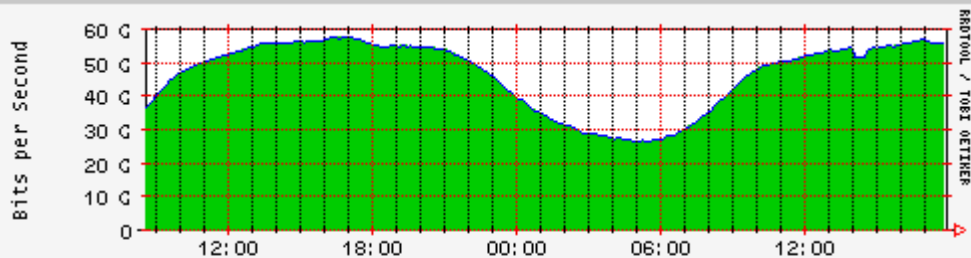
- In case you've been hibernating...  
☺
- Not-for-profit, mutual internet exchange
  - Governed by members
  - 4 member meetings per year
- 20 Staff members (~18 FTE)
- 10 Years Old in 2005
  - A number of pioneering firsts behind us

# Current Status

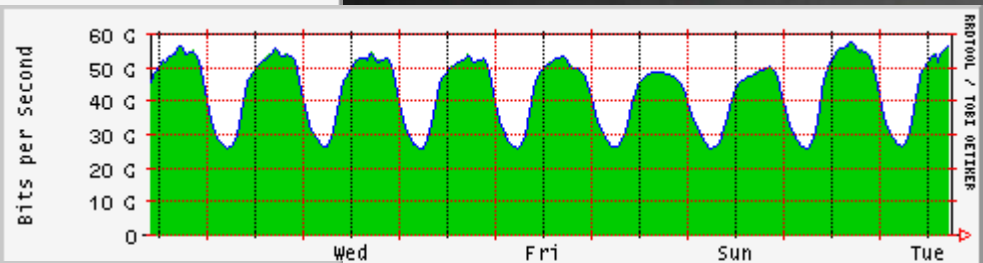
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- 173 members from 27 countries
- Present at 6 Carrier hotels in London
  - Not owned by LINX, independent
- Dual platform, multiple 10G ring design
  - Two separate public peering LANs, available across all sites
  - Foundry and Extreme switches
- Public switch traffic: 56 Gb/sec
  - With steady growth
- Managed Private Interconnects: ~25 Gb/sec

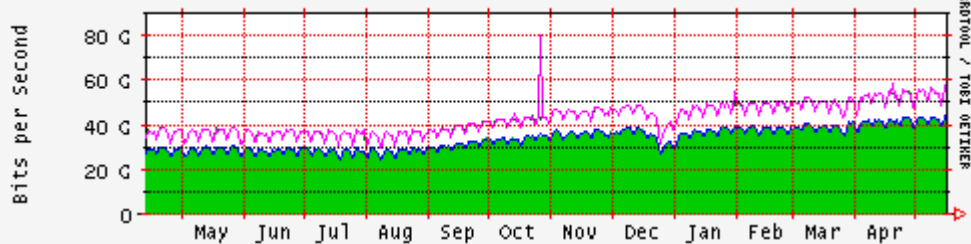
# Switch Traffic



■ Incoming Traffic in Bits per Second  
■ Outgoing Traffic in Bits per Second  
 Maximal In: 57.761 Gb/s    Maximal Out: 57.736 Gb/s  
 Average In: 46.517 Gb/s    Average Out: 46.504 Gb/s  
 Current In: 55.688 Gb/s    Current Out: 55.683 Gb/s



per Second  
 per Second  
 Maximal Out: 57.736 Gb/s  
 Average Out: 42.632 Gb/s  
 Current Out: 56.624 Gb/s



■ Incoming Traffic in Bits per Second  
■ Outgoing Traffic in Bits per Second  
■ Maximal 5 Minute Incoming Traffic in Bits per Second  
■ Maximal 5 Minute Outgoing Traffic in Bits per Second  
 Maximal In: 57.761 Gb/s    Maximal Out: 80.192 Gb/s  
 Average In: 33.536 Gb/s    Average Out: 33.528 Gb/s  
 Current In: 44.111 Gb/s    Current Out: 44.098 Gb/s

# Network Design

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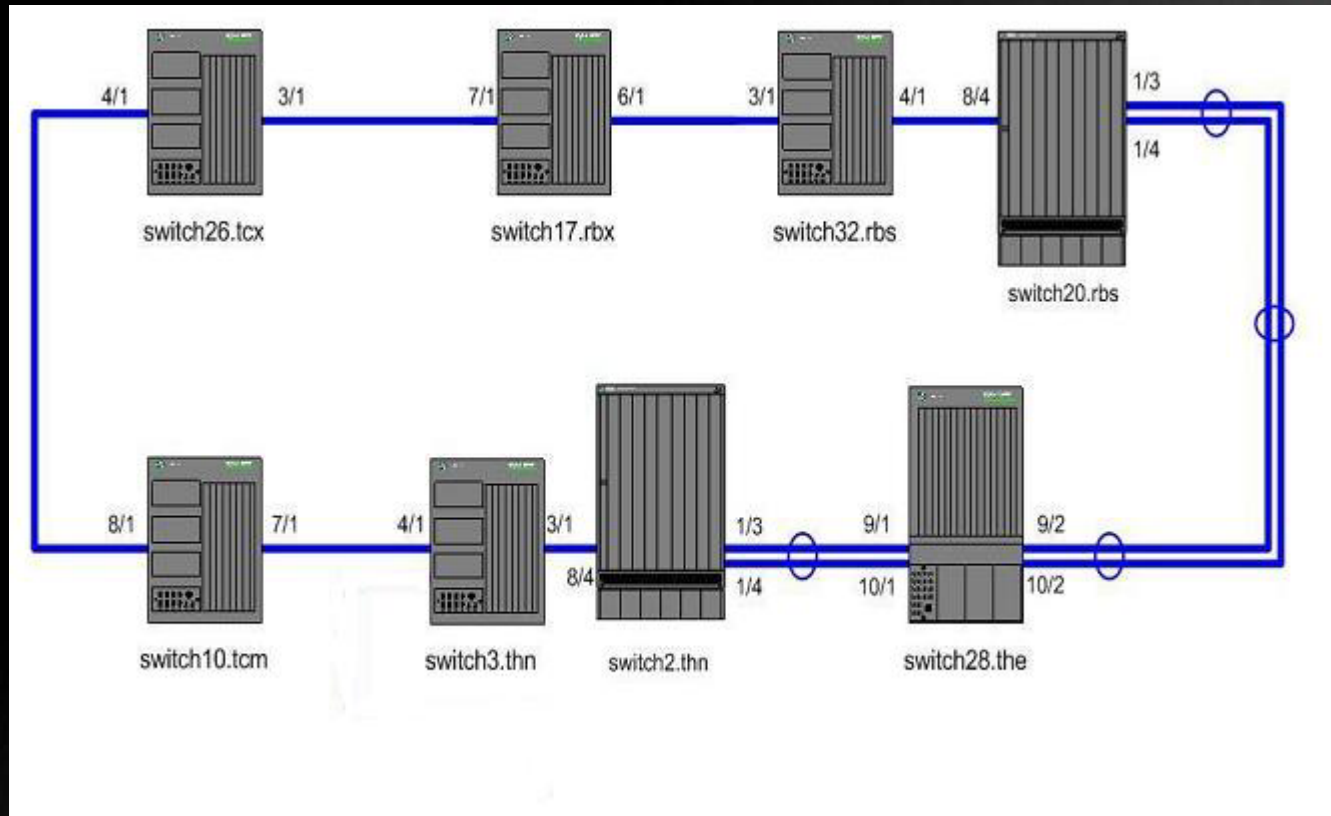
- Equipment from two separate vendors:
  - Foundry (MG8 and JetCore)
  - Extreme (BD6808 with MSM3)
- Configured as two separate non-connected peering LANs
- Diversely routed intersite fibre
- Ring protection to manage redundant links
  - Foundry MRP or Extreme EAPS

# Network Basics

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- Flat layer 2 network
  - Can see all participants on the LAN by connecting to one site
- Wide range of connection speeds
  - 10/100, 1G and 10G Ethernet
- Each network is very similar
- Currently don't offer VLAN services

# Foundry Network Diagram



# Multicast Support

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- Multicast currently provided over a separate platform
- Now moving to multicast as a VLAN on the main infrastructures
- Migrate to PIM snooping
  - For multicast containment
- Provide native multicast on the peering LANs?



# IPv6 Support

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- Supported natively on the main peering LAN
- Not lots of v6 participants at this time
  - <20
- Seeing some gentle growth

# “Good of the Internet”

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- Hosting activities of essential items
  - Root nameservers (K.root and I.root)
  - ccTLD Nameservers (.at, .be, .eu, .uk)
- Hosting of research activities
  - PCH
  - Route views
  - RIPE NCC RIS and TT boxes

# Regulatory Activities

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- One full-time staff member
  - Malcolm Huddy
- Number of activities
  - Anti-spam, content regulation, etc
  - Mostly working with UK Government
  - Work in Brussels increasing
  - Currently monitoring WSIS activities
    - Some collaboration with RIPE NCC in this area
- <http://publicaffairs.linx.net/>

# Questions?

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**LINX**<sup>™</sup>