How do we fix it?

What to do and not to do

Who is NL-ix?

NL-ix 'the Neutral Internet Exchange' operates the largest Distributed Internet Exchange with over 380 members covering 6 countries and more than 70 data centers. On its high-grade distributed fully IPv4 and IPv6 enabled network, NL-ix provides Access providers, Content Delivery Networks, streaming media providers, IP-carriers and large Internet companies the ability to exchange mutual traffic via peering. Serving key markets in the Netherlands, Belgium, Germany, France, United Kingdom and Luxembourg, NL-ix offers 100Mb, 1Gb, 10Gb and 100Gb ports with supreme quality and the most competitive services in the market.

Six reasons to join NL-ix
- Cost effective means of exchanging traffic
- Unique and diverse peering community (40% unique members)
- To improve performance and redundancy
- Distributed Exchange Model allowing you to peer between key EU cities
- Constant development - business continuity
- Neutral and independent

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Disturbances on IX's

- What can go wrong 'breaking' the IX

  - New network connecting
  - Broken hardware
  - Transport issues
  - Remote peering issues

  - IX maintenance

What has been done

- IX have a quarantine period for new networks
- IX have sponge
- IX have Layer4 filter (trail)
  - See Will Hargrave presentation at RIPE67
  - https://ripe67.ripe.net/presentations/374-WH-IXPMaintReduce.pdf

- Sponge and Layer4 filter still need 3-5 minutes to mitigate

How can you help

- Is shutting down your port the only solution?
  - Effects of massive shutdowns are killing smaller ports with ARP updates and
  - create additional disturbance/problems on the IX

- As a network engineer you want to **troubleshoot!**

What do you think?

- What else can be done?

  - Retract prefixes from IX?
    - Can a NOC do this?
  - Filter traffic from IXP prefix range
    - Is this information always visible?
  - ?????? What do you think?