



Simplify sponsoring, speed up communities

by

IN-BERLIN

What is Community-IX?

- Connectivity platform for non-profits
- Provide free IP transit to non-profits
- Powered by IN-Berlin e.V.
- Started in 2016 (on RIPE72)
- About 100-120 Gbit/s traffic
- Supported by major commercial IXPs



AS57555

185.1.74.0/24

2001:7f8:a5::/48

What makes Community-IX special?

- L2 platform, like a regular IXP, but for IP transit and non-profit
- Reduce effort for communities and sponsors
 - No setup effort for every single peer
 - Cross Connect, port, IP configuration, BGP sessions, documentation
 - All communities/sponsors are available behind one port
 - Only one Cross Connect to a Community-IX switch
 - Only one documentation for Community-IX
 - Only BGP sessions to the route servers (if desired)
 - With some exceptions...

Exceptions on route servers? Why?

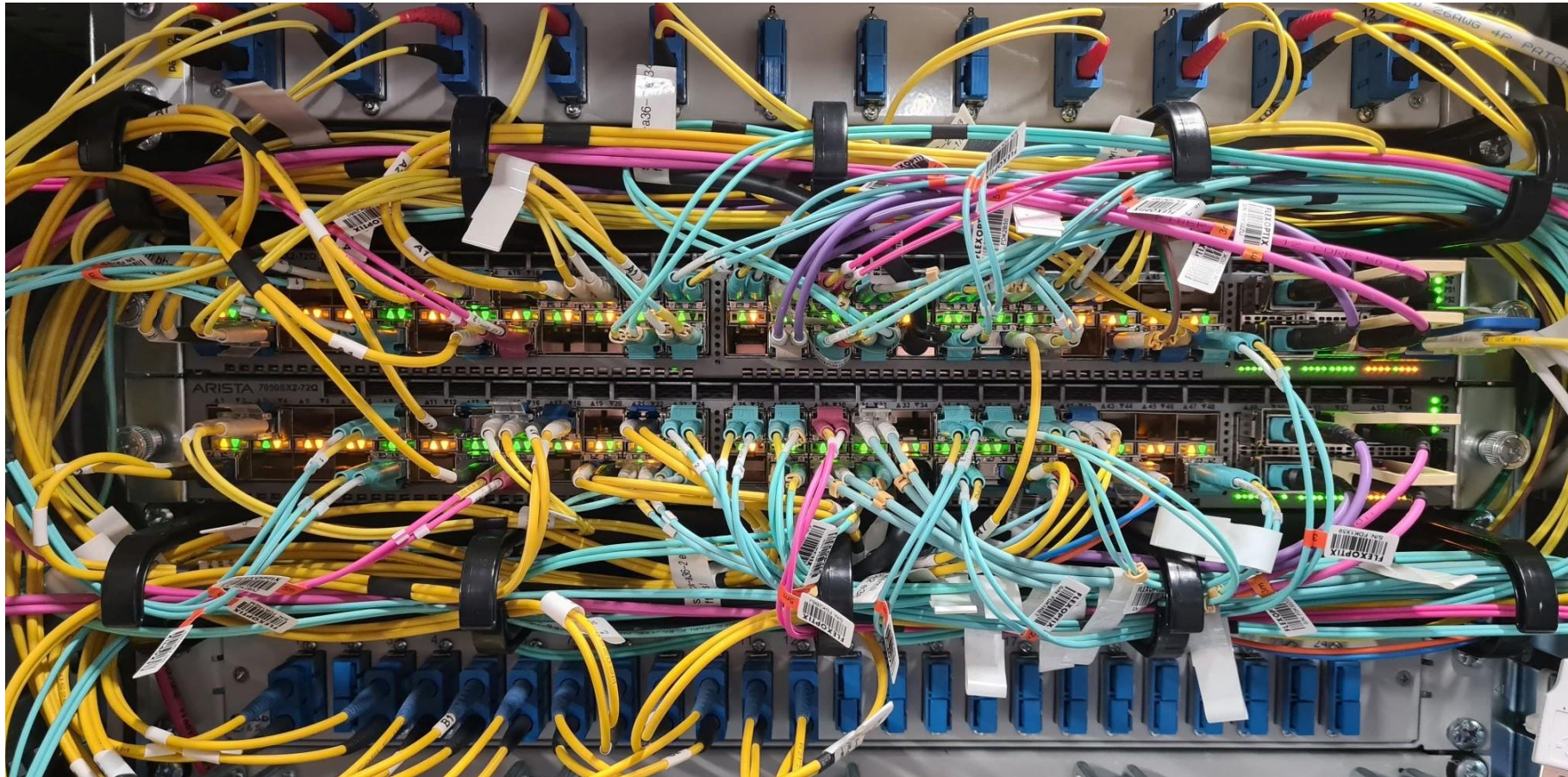
- Many paths with the same length -> BGP add-path to peers
 - Better traffic distribution to sponsors
- All sponsors send full tables
 - ~930k IPv4 prefixes
 - ~190k IPv6 prefixes
- Some sponsors are in multiple locations
 - ~15M IPv4 paths
 - ~3M IPv6 paths
- BIRD route servers currently cannot limit number of paths to peer
 - IETF WG Draft: draft-abraitis-idr-addpath-paths-limit-01 could solve this (if it becomes an RFC and is implemented in BIRD)

Community-IX locations

- Germany: 6 locations
 - Berlin
 - I/P/B CarrierColo Lützwow
 - NTT Berlin 1 Datacenter
 - Speedbone
 - Frankfurt
 - Digital Realty (former Interxion) FRA4
 - MK Netzdienste
 - Hamburg
 - IPHH HH2
- 22 communities
- 13 IP transit sponsors
- 8 connected IXPs
- Switzerland: 3 locations
 - Zürich
 - AXA Winterthur
 - Colozueri.ch
 - NTT Zurich 1 Datacenter
 - 12 communities and individuals
 - 5 IP transit sponsors

no interconnect between countries

Community-IX Berlin (Speedbone)



Colorful and diverse ;-)

Community-IX at RIPE88

Non-profit peers of Community-IX.de

Artikel 10, AS112 project, AS250.net, measurement.network



Stiftung
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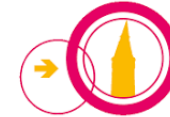
bremen.freifunk.net



Freifunk Lippe



Förderverein freie Netzwerke e.V.



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Freifunk Münsterland



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systemli.org



hamburg.freifunk.net

freifunk rheinland



Freifunk Frankfurt a.M.



Our awesome sponsors of Community-IX.de

IP transit

- Anexia, Core-Backbone, Deutsche Telekom AG, Init7, Inter.link, IONOS SE, LWLcom, meerfarbig, NTT, RETN, rrbone, Vodafone GlobalNet, WOBCOM

IXPs

- BCIX, DE-CIX, Megaport (multiple locations), NL-ix

Transport, rackspace or hardware:

- Anexia, Arista, BCIX, d-hosting, DE-CIX, Flexoptix, I/P/B/, IN-Berlin, Inter.link, Interxion, ISP Service eG, Juniper, nepustil.net, NTT, RETN, serve-u, Speedbone, STRATO, vServer.site, Xantaro

Policies for Community-IX.de

Peer focus:

- Non-profit initiatives or community-driven projects
- Serving the interests of the Internet community
- No affiliation with political or religious entities

Technical prerequisites:

- Own Autonomous System Number
- Own IP space
- Can connect physically

What do you need to build a Community-IX?

- Someone who is willing to do the work ;-)
- Resources for the peering LAN (IPv6, IPv4, route server ASN)
- Non-profit Projects / Communities (depending on your policy)
- IP transit / connectivity sponsors
- Data Center location for peering
- Hardware (switches, servers)
- Cross Connects to Communities and Sponsors
- BGP route servers
- IXP Manager (not mandatory, but helps a lot)

Build more Community-IX platforms!

You know the non-profits, locations and IP transit providers in your country best.

Take the initiative to start a Community-IX in your country.
Support your local internet community!

**We built it for Germany.
What about your country?**

<https://www.community-ix.de/>

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