euro-ix

The future of Interconnection

Bijal Sanghani

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ribbon smartoptics

Membership Association of IXPs



Events

- Two Membership events per year hosted by our Members
- Workshops & hackathons
- Online/ virtual workshops



Services

- Reports
- Newsletters
- Mailing list
- IXP Benchmarking
- Working groups



Tools & Community Projects

- Internet eXchange Point Database – IXPDB
- Peering Toolbox
- Fellowship & Mentor-IX
- Working Groups
- A new IXP Film





Peering Toolbox

Community Focused Learning Tool



Peering Toolbox

- Focused on learning:
 - Short sections with clear explanations of each topic
 - Easy for new entrants to discover what they need to make the best decisions for their network
 - Easy for organisations already peering to learn about current best practices, keep up to date with technology, and help with troubleshooting connectivity and reachability issues
 - Advice from experienced peers sharing tips and tricks
 - Use of the IXPDB and the PeeringDB



RFC8950 Working Group

RFC8950 Working Group

- RFC8950 = IPv4 BGP route with IPv6 next-hop
- Formerly known as RFC5549 (many implementors refer to this)
- Allows for IPv6-only peering LANs
- Working group
 - led by Aleksi and André
 - founded at 38th forum
 - monthly Zoom meetings
 - Mailing list + Mattermost + GitHub



RFC8950 Working Group

- Setup a ContainerLabs environment for testing
- Aim to test different vendors' BGP implementations and interoperability
- Tested so far:
 - Arista EOS
 - Juniper JunOS
 - Bird 2.x as Route server
 - (ARouteServer)



RFC8950 Working Group

- Special configurations?
- We don't want to see IXP peering LAN IP visible in traceroute
- Can RFC8950 peers and traditional peers be safely mixed on the same route server?
- If you're interested to learn more about this work get in touch!



IXP{DB}

IXP{DB}

A trusted source of information about IXPS!



The IX-F JSON Schema

- A community driven schema that allows IXPs to report their data in a standard automated fashion
- It includes data sets on:
 - The IXP participants
 - IXP locations
 - Hardware used at IXPs and it's participants
 - Route Servers
- You can find the schema and documentation here https://github.com/euro-ix/json-schemas
- IXPs can also add their IX-F export APIs to PeeringDB https://docs.peeringdb.com/ix-f-json-import-rules/



The Future



Available now

- Collect, organise & structure data
- Encourage IXPs to adopt to the schema – 320 today!



Coming soon

- Visualise the data via Maps and Charts
- Downloadable data sets in structured formats



Next Steps

- Finalise traffic API and build traffic trend datasets
- Data validation
- Identify useful 3rd party data















Contact secretariat@ix-f.net if you'd like to find out more or sponsor us!



Interactive Session



