InterLAN-IX

update

RONOG 9

Overview

- **Distributed Exchange Platform**

  InterLAN-IX is available across 16 strategic locations, enhancing connectivity and network resilience.

- **Locations in Bucharest**

  Home to 7 key facilities, serving as the central hub for Romania's network traffic.

- **Regional Facilities in Romania**

  7 additional facilities located in major cities: Arad, Cluj-Napoca, Constanța, Craiova, Iași, Suceava, Timișoara. These sites extend the reach and improve service quality across the country.

- **International Presence**

  2 facilities in key European cities: Frankfurt, Germany and Sofia, Bulgaria, facilitating international connectivity and traffic exchange with major global networks.

InterLAN-IX Distributed Platform
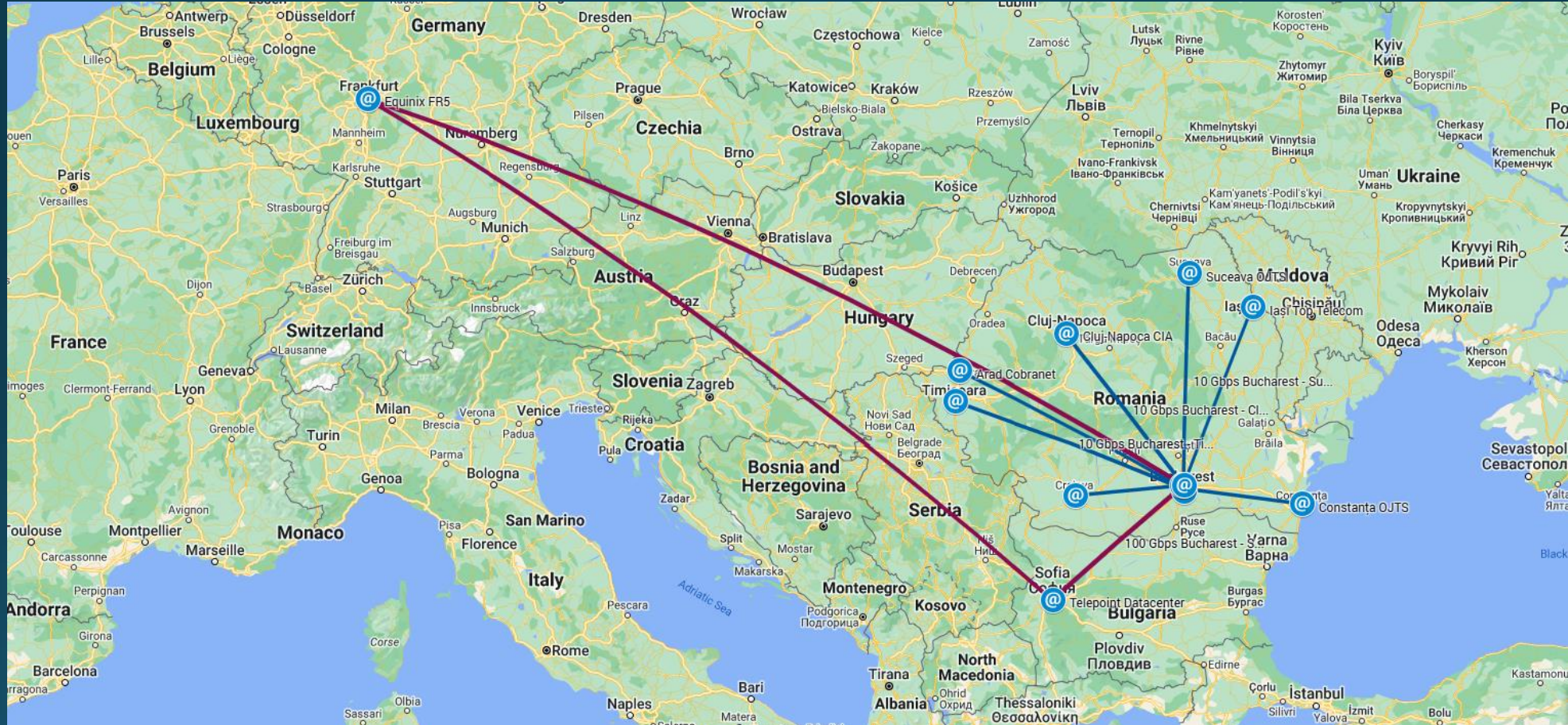
The Distributed Model of InterLAN-IX

- **Central Hub in Bucharest**

  The main presence points are in Bucharest, serving as the central hub for InterLAN-IX.

- **Regional Distribution Points**

  Smaller distribution points throughout Romania are primarily aimed at assisting local operators to connect to the IX. These are crucial for enhancing regional access and reducing latency for local traffic.

- **International Points of Presence**

  The distribution points in Frankfurt and Sofia are tailored for major international operators and content providers. These are not local exchange points but serve as gateways for international traffic and global content distribution.

- **Strategic Distribution**

  This configuration allows InterLAN-IX to support both local and international connectivity needs effectively, making it a truly distributed exchange. It helps local operators improve performance while enabling global reach for larger entities.
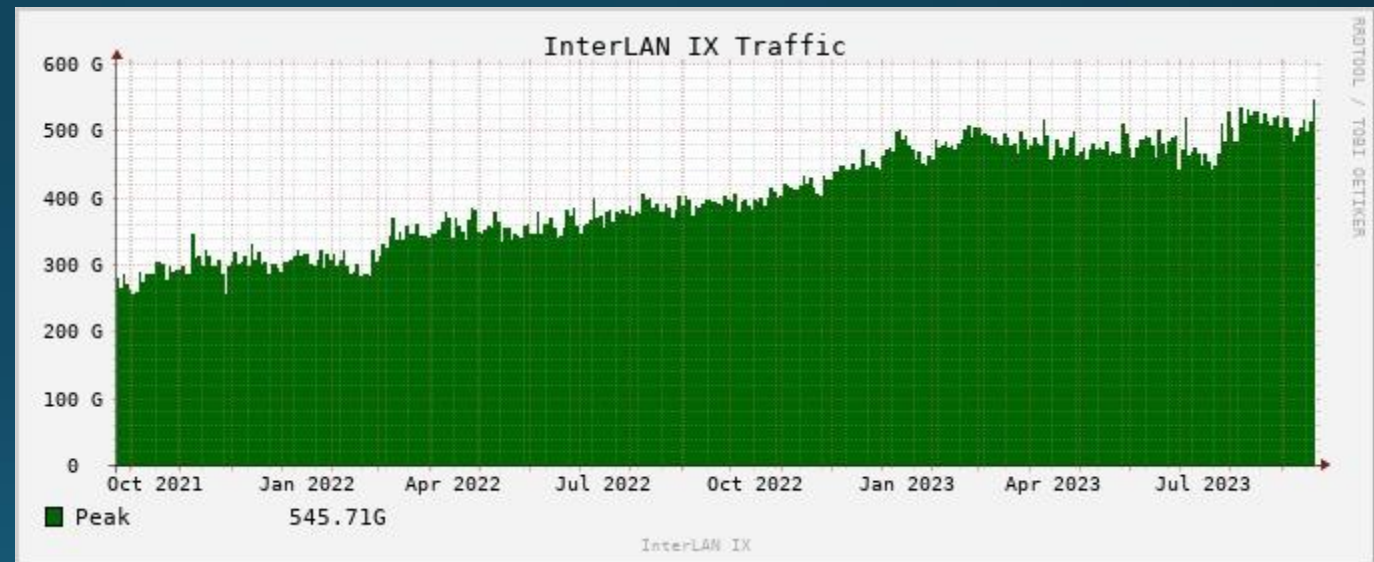
Connected capacity & Traffic

Daily peak traffic: 600 Gbps

Connected ports:
- 0 x 400G
- 22 x 100G
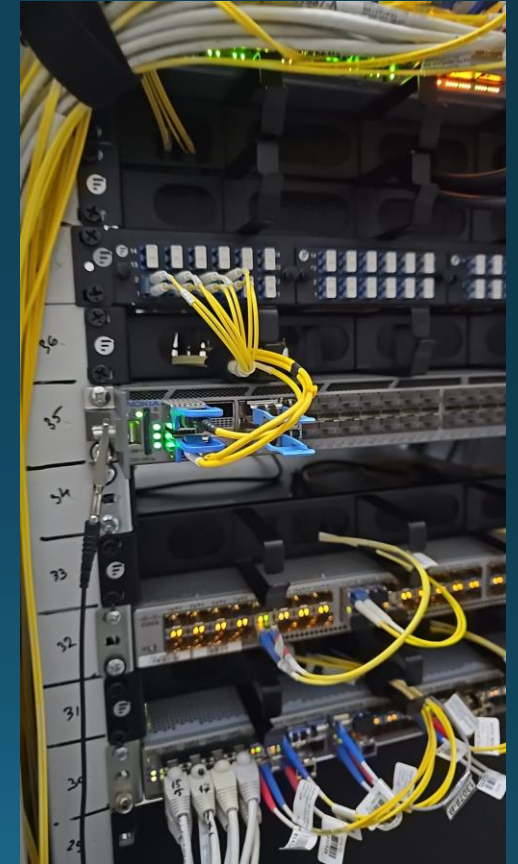- 3 x 40G
- 129 x 10G
- 38 x 1G

Total connected capacity: 3,6T

Available ports

- 400G ports available at:
  - NXDATA-1 and NXDATA-2 Bucharest
  - Equinix FR5 Frankfurt
  - Telepoint Sofia

- 100G and 40G ports available in:
  - Bucharest
  - Frankfurt
  - Sofia

- 10G ports available everywhere


INTERLAN
INTERNET EXCHANGE

TV Exchange Media Platform

- **Enhanced Digital Content Delivery**
  - Broadcast and receive audio/video streams via multicast technology, catering to a diverse media landscape.

- **Efficient and Secure Channel Distribution**
  - Operates on a dedicated VLAN, ensuring secure and efficient channel distribution. Supports multicast MPTS/SPTS and unicast for varied broadcast needs.

- **Advanced Streaming Infrastructure**
  - Arista switches and dedicated servers at NXDATA-1 and NXDATA-2 manage TV streams in formats like UDP TS, HTTP, and SRT. Streams are aggregated, converted, and delivered to cable TV networks and online platforms, with redundancy ensuring enhanced reliability.

- **Diverse Content and High Flexibility**
  - Supports a broad range of digital channels and stream types, providing 204 TV channel streams for enriched viewer experience and content delivery flexibility.

TV Exchange Media Platform
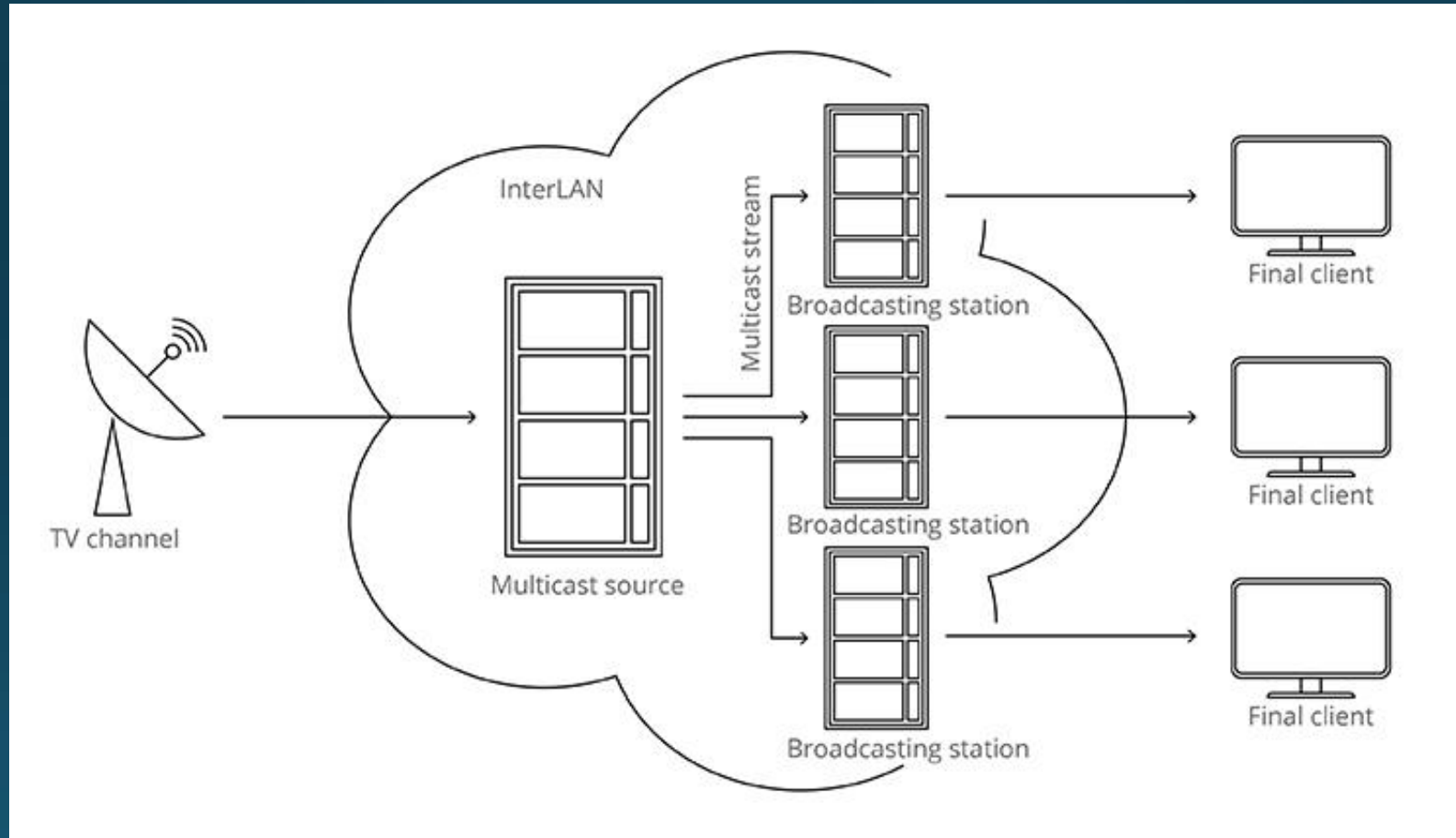
Comprehensive Services

- **Broad Connectivity**
  - Connects 135 ASNs from Romania, as well as from the region and worldwide.

- **Multicast Streaming**
  - Provides multicast streams via the TV Exchange service (TVX).

- **DNS and Routing Services**
  - Hosts 5 DNS Root anycast instances: D, E, F, K, L.
  - Offers AS112 service.
  - Features RIPE NCC Route Collector RRC22 (RIS) & AuthDNS.
  - Includes a BGP.tools route collector for enhanced routing transparency.

- **Performance Testing and Time Synchronization**
  - Hosts NTP time server, a member of ro.pool.ntp.org.
  - Provides Ookla & nPerf speedtest servers for network performance testing.

- **Peering Management and Compliance**
  - Utilizes IXP Manager as the peering tool.
  - Fully compliant with MANRS (Mutually Agreed Norms for Routing Security) for enhanced security and reliability.

Key Enhancements and Future Directions

- **Metropolitan Ring Upgrade in Bucharest**

  Upgrading the capacity of the metropolitan ring to 100G to better accommodate growing traffic and enhance network performance. Implementation of new Nokia switches in Bucharest POPs will facilitate this upgrade.

- **Expansion and Upgrades in National POPs**

  Implementing new Nokia switches in newly established POPs in Târgu Secuiesc and Gheorghieni, with plans to upgrade all national POPs with Nokia equipment starting next year.

- **Operationalization of Sofia International POP**

  The newly operational point of presence in Sofia expands our reach and strengthens international connectivity.

- **Advancements in Port Capacity**

  Introduction of 400G ports paves the way for higher-capacity interconnections. Plans are in place to introduce 800G ports in the future, supporting even greater throughput and network efficiency.

- **Nokia Equipment Deployment**

  The implementation of Nokia networking equipment has improved traffic management using EVPN and MPLS technologies, while also ensuring maximum interoperability with core facilities at NXDATA-1, NXDATA-2, Equinix FR5, and Telepoint, thereby enhancing seamless integration and network efficiency.

- **Development of a Web Application for Infrastructure Management**

  Developing a web application to enable efficient visualization, control, and management of service infrastructure and equipment for InterLAN Internet Exchange.

Events hosted by InterLAN-IX

- **RONOG** Meetings since 2014 R●NOG
- **25th Euro-IX Forum**, 26 - 28 October 2014, Bucharest euro-IX
- **RIPE 71**, 16 – 20 November 2015 Bucharest RIPE NCC
- **ION Meeting**, 12 October 2016, Bucharest Internet Society
- **RIPE SEE 7**, 18-19 June 2018, Timișoara RIPE NCC
- **37th Euro-IX Forum**, 23-25 April 2023, Cluj-Napoca euro-IX
- **Internet Measurement Day: Romania**, 1 October 2024, Bucharest RIPE NCC
- **European Peering Forum 2025** (as Guest IXP), 15-17 September 2025, Bucharest
- **RIPE 91**, 20-24 October 2025, Bucharest RIPE NCC

Community Contributions by InterLAN-IX

- **IXP Manager Sponsorship**

  As a Bronze sponsor of the IXP Manager project, InterLAN-IX supports this crucial tool that helps IXPs manage their operations. IXP Manager facilitates the handling of peering sessions, provides graphical representations of traffic, and manages member contacts and billing.

- **PeeringDB Involvement**

  Serving as a Silver sponsor of PeeringDB, InterLAN-IX aids in maintaining this vital database that assists networks in arranging peering agreements. PeeringDB is a resource for networks worldwide to share information about their connectivity and colocation facilities.

- **PeeringDB Interface Translation**

  InterLAN-IX translated the PeeringDB interface into Romanian, making it the only interface among all translated languages to be fully completed, enhancing accessibility for Romanian-speaking network operators.

- **IXPDB Sponsorship:**

  InterLAN-IX is a proud sponsor of the IXPDB project, contributing to this comprehensive database designed to enhance the visibility and interoperability of Internet Exchange Points worldwide.

- **Euro-IX Film Dubbing**

  InterLAN-IX facilitated the Romanian dubbing of Euro-IX's educational film, "The Internet Revealed," making it accessible to a broader Romanian-speaking audience.

Resources

- Official website: https://www.interlan.ro
- Facebook: https://www.facebook.com/interlaniex
- LinkedIn: https://www.linkedin.com/company/interlaninternetexchange/
- PeeringDB (InterLAN-IX): https://www.peeringdb.com/ix/270
- PeeringDB (InterLAN Route Servers): https://www.peeringdb.com/net/11965
- IXPDB: https://ixpdb.euro-ix.net/en/explore/ixp/37/
- HE BGP Tool: https://bgp.he.net/exchange/InterLAN
- Cloudscene: https://cloudscene.com/service-provider/interlan-route-servers
- Data Center Map: https://www.datacentermap.com/c/interlan/
- Wikipedia: https://en.wikipedia.org/wiki/Interlan

Questions?

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