

# InterLAN Internet Exchange

update

#### Who are we?



- InterLAN Internet Exchange is a private company owned by Interlan Asociation (Asociația Interlan)
- Interlan Association is a not for profit organisation of Internet Service Providers in Romania founded in 2005, currently having 43 members
- Members of the Association are Romanian ISPs only
- InterLAN-IX is the main project of the Association, along with other projects intended to support the activity of its members
- The name InterLAN comes from "Interconnecting Local Area Networks"

### InterLAN Internet Exchange



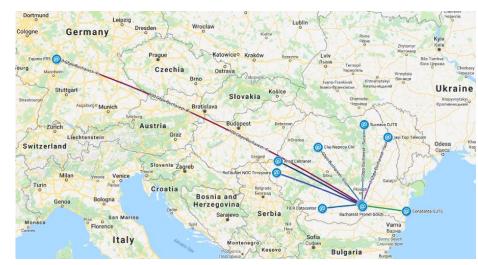
- 130 ASNs from Romania as well as from the region and worldwide connected
- 15 locations: 7 in Bucharest, 7 in major cities representing regions of Romania and 1 in Frankfurt, Germany
- Multicast Exchange Platform TVX
- 5 DNS Root anycast instances: D, E, F, K, L
- AS112 service
- RIPE NCC RIS Remote Route Collector (RRC22) & AuthDNS in deployment
- IXP Manager peering tool

# National & regional infrastructure



#### 168 ports in 15 POPs:

- 7 POPs in Bucharest over 40G ring (NXDATA-1, NXDATA-2, Voxility, M247, Teletrans, Radiocom, Ines Group)
- 7 POPs over 10G links in Arad, Cluj-Napoca, Constanța, Craiova, Iași, Suceava, Timișoara

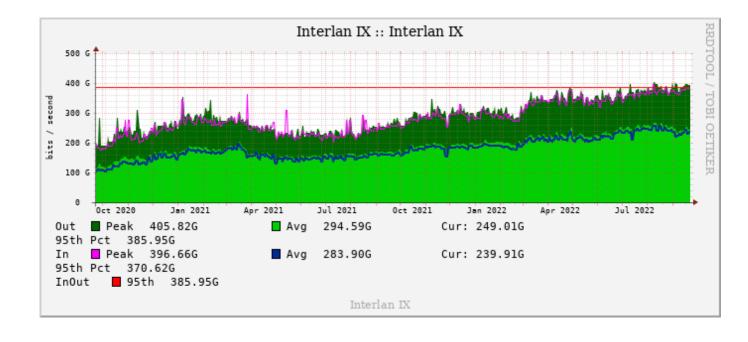


1 POP over 200G link in Frankfurt Equinix FR5

## Connected capacity

#### Ports:

- 6 ports x 100M
- 36 ports x 1G
- 111 ports x 10G
- 2 ports x 40G
- 13 ports x 100G



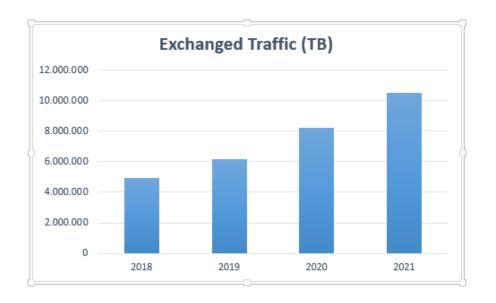
Total connected capacity: 2,527T

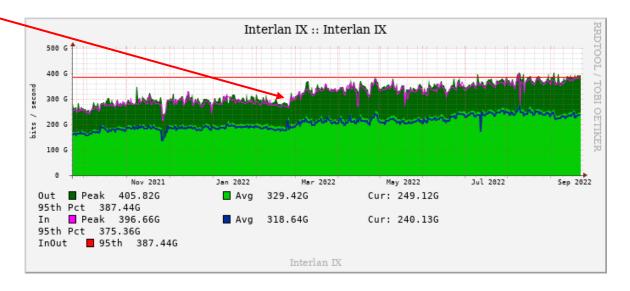
99% of customers are using route-servers

99% of customers are IPv6 enabled

## **Exchanged Traffic**

- Today's daily peak traffic: 400 Gbps
- Total exchanged traffic in 2021: over 10 million Terabytes
- Massive increase of traffic with Republic of Moldova and Ukraine since March 2022





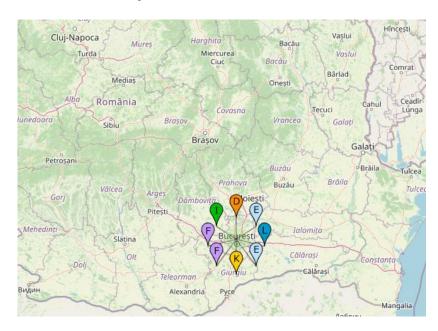
#### **DNS Root Servers**

As of 27 September 2022, the root server system consists of 1551 instances operated by the 12 independent root server operators.

All 8 DNS Root Anycast Servers in Romania are hosted in Bucharest.

5 out of 8 DNS Root Anycast Servers in Bucharest are hosted by InterLAN:

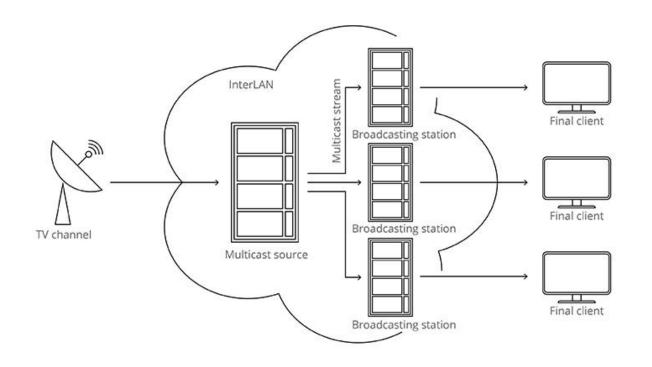
- D-Root (University of Maryland)
- E-Root (NASA Ames Research Center)
- F-Root (Internet Systems Consortium)
- K-Root (RIPE NCC)
- L-Root (ICANN)



#### TV Exchange Media Platform



- 154 streams
- 106 TV channels
- Multicast MPTS/SPTS and unicast
- Stream management app in development



### IXP Manager



- InterLAN-IX uses IXP Manager, a management system for Internet Exchanges
- Includes administration and customer portal
- Provides end to end provisioning
- Allows IXPs to manage new customers, provision new connections and services and monitor traffic usage.
- Released by INEX under an open source license
- 184 IXPs worldwide are using IXP Manager
- InterLAN-IX is a Silver Sponsor of this project since January 2018

#### PeeringDB



#### Peering DB information:

InterLAN Internet Exchange:

https://www.peeringdb.com/ix/270

InterLAN Route Servers:

https://www.peeringdb.com/net/11965



#### Supporting PeeringDB:

- InterLAN is a Silver Sponsor of this project since January 2020
- Romanian language interface translation done by 100%.

#### What we did in 2022

- Increasing number of ASNs and ports
- Increasing number of CDNs as well as TV Channels
- Migration to Arista Networks switches
- Link from Bucharest to Frankfurt upgraded to 200G
- Partnership Agreement with DE-CIX, enabling Romanian Networks and Enterprises to access the world's largest neutral interconnection ecosystem
- Supporting Ukraine by waiving the port fee for Ukrainian telecom operator UTG

## **Events Hosted by InterLAN**

- 25th Euro-IX Forum: 26 28 October 2014, Bucharest
- RONOG 1: 29 October 2014, Bucharest
- RONOG 2: 29 October 2015, Bucharest
- RIPE 71: 16 20 November 2015 Bucharest
- RONOG 3 & ION Meeting: 12 October 2016, Bucharest
- RONOG 4: 31 October 2017, Bucharest
- RIPE SEE 7: 18-19 June 2018, Timișoara
- RONOG 5: 23 October 2018, Bucharest
- RONOG 6: 1 October 2019, Bucharest
- RONOG 7: 29 September 2022, Bucharest
- Next event: 37th Euro-IX Forum, 23-25 April 2023, Cluj-Napoca









#### Questions?



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