

NEUTRAL IXP IN ALBANIA

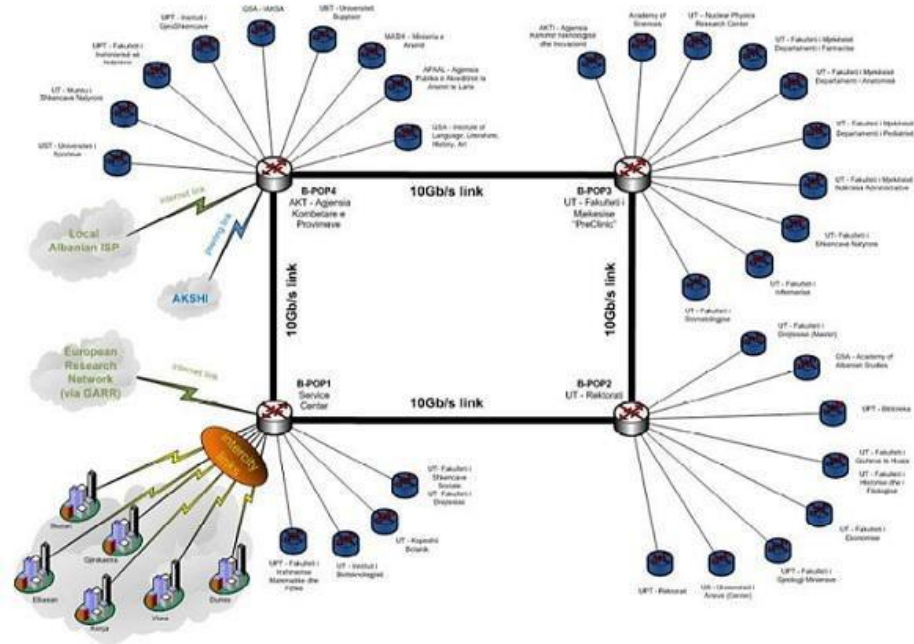
An Ongoing Initiative

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About RASH

- Albanian NREN
- Founded in 2012
- Mission:
 - Connect Albanian public universities to GEANT and to the Internet
 - Provide services to universities
 - Software for administration, accounting, HR
 - Portals for professors and students



About NaMeX

- Neutral, non-profit, member-based IXP
- Based in Rome, Italy
- Founded in 1995, established as a consortium in 2001
- 74 members
 - National/International carriers
 - CDNs/OTT
 - Local ISPs
 - NREN and NGOs
- Public peering, colocation and meet-me room
- ~40Gbps publicly exchanged traffic
- Second largest IXP in Italy
- Mission: To promote and facilitate the interconnection of networks and networking communities

Where does local Albanian traffic go?

- Shkodër to Tirana: 70 km
- Traceroute:
 - Athens
 - London
 - Amsterdam
 - Hamburg
 - Prague
 - Bratislava
 - Budapest
 - Belgrade
 - Podgorica
- RTT: 108.7 ms



(Made with RIPE Atlas)

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Where does local Albanian traffic go?

- Kukës to Tirana: 100 km
- Traceroute:
 - Vienna
 - Bratislava
 - Budapest
 - Belgrade
 - Podgorica
- RTT: 33.7 ms



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Where does local Albanian traffic go?

- Albanian-language traffic includes Kosovo
- Prishtina to Tirana: 185 km
- Traceroute:
 - Milan
 - Frankfurt
 - Munich
 - Vienna
 - Sofia
 - Skopje
- RTT: 71.3 ms

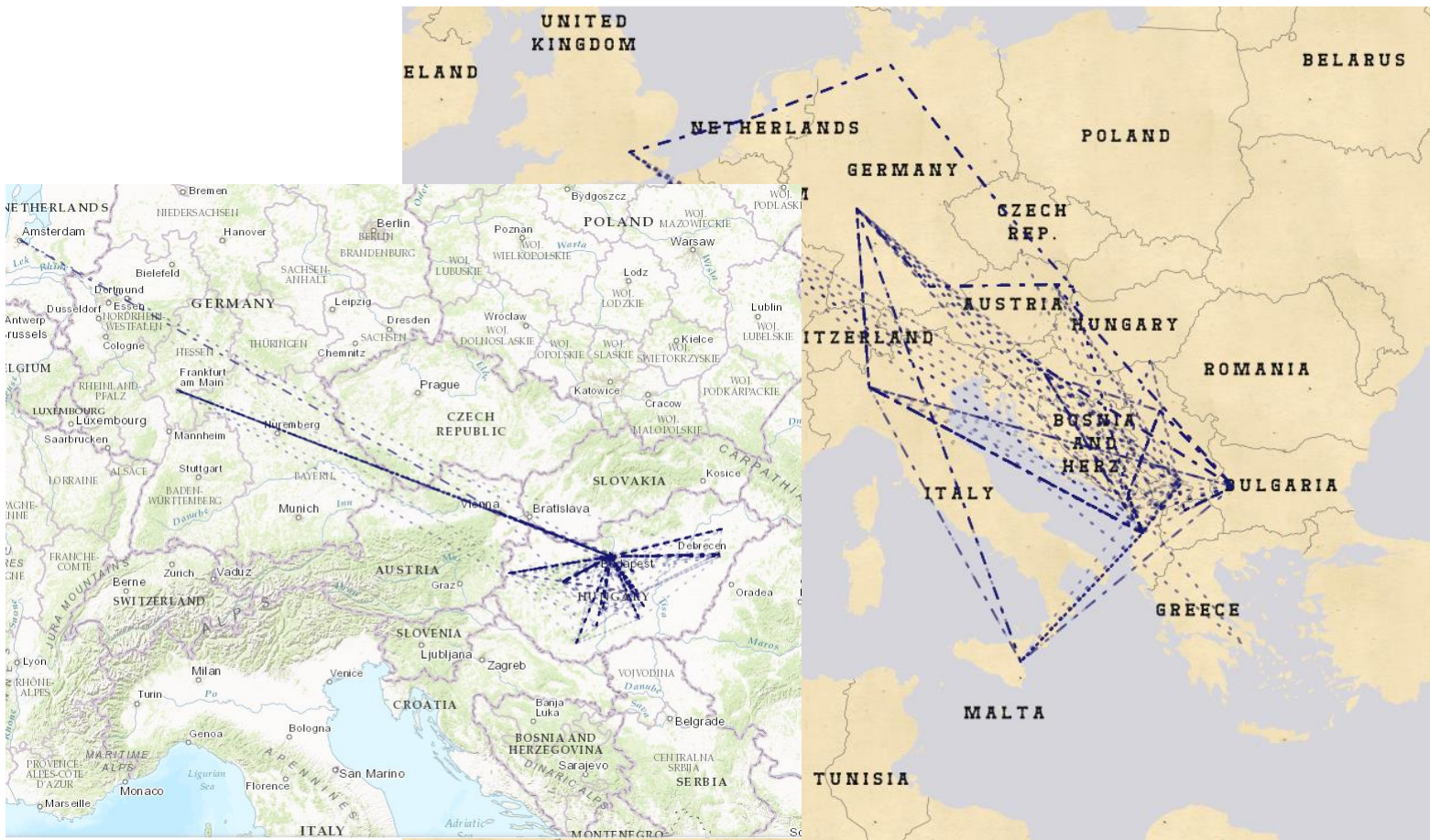


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Where does local Albanian traffic go?

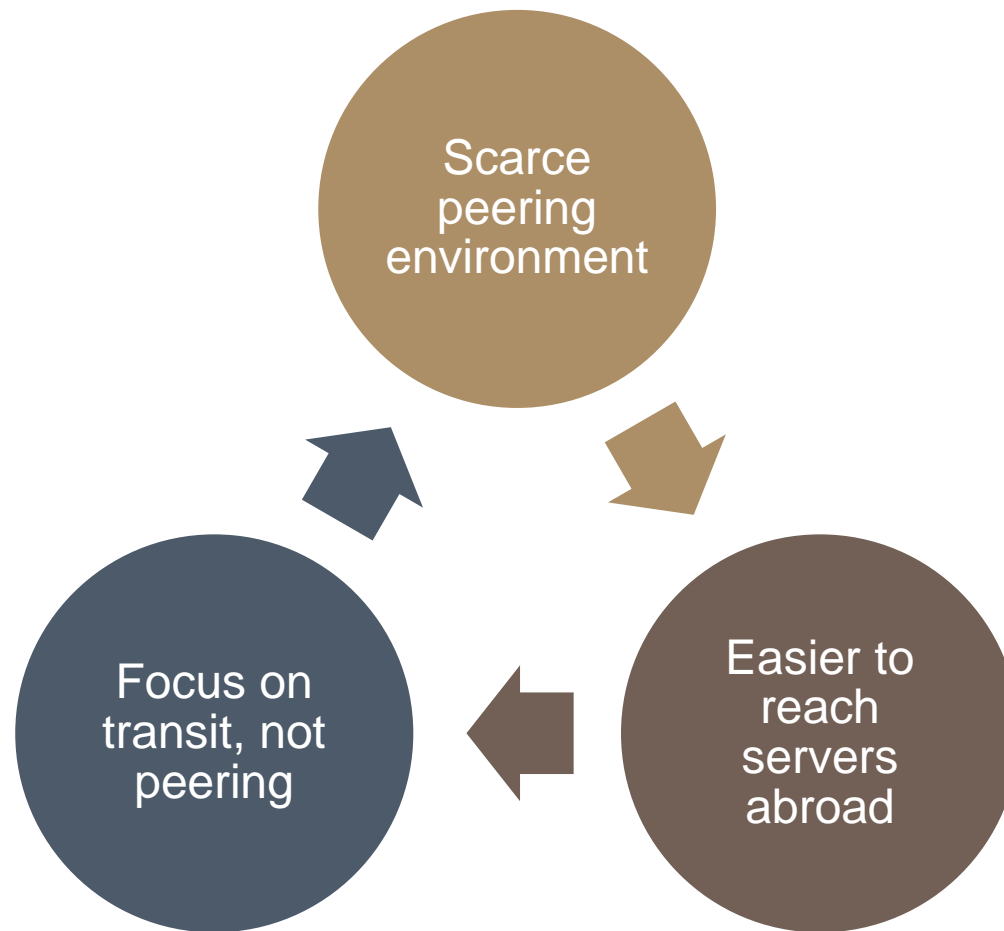
A map of traceroutes between Atlas probes in Albania (courtesy ixp-country-jedi)



Albanian ISP/Internet Situation

- Albania is an ISP-rich environment: 51 ASNs
 - Comparison: 36 MK, 14 ME, 145 GR, 151 RS
 - 661 IPv4 Routes
 - 33 IPv6 Routes
- 39 ASNs with no peering to speak of
 - i.e. 3 IPv4 “adjacencies” (i.e. peerings + transits) or less
 - 77% of total
 - Only 6 with 7+ adjacencies (i.e. “active” peering)
- About 17,000 .al domains registered
- Most local-content websites are hosted abroad
 - **None** of the top 20 Albanian sites is hosted inside the country

Why is Albanian content hosted abroad?

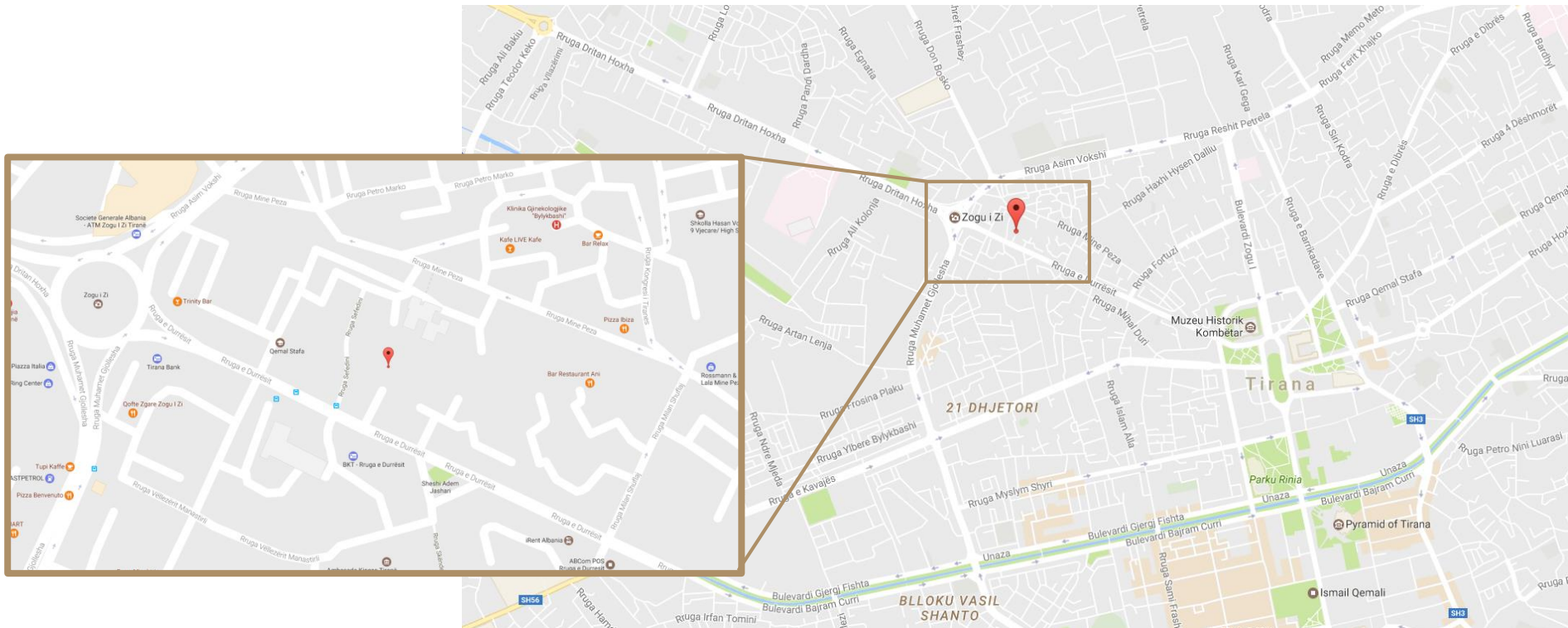


IXP in Albania

- One existing IXP: ALB-IX
 - A *service* of ALBtelecom (the incumbent)
 - 8 customers
 - Main drawback: lack of trust of ISPs in the incumbent
 - Competitor, non-neutral
- We are building a neutral IXP in Tirana
 - Management: RASH supported by NaMeX
 - Guaranteed neutrality & experience
 - Participation:
 - Several Albanian ISPs are already willing to get started
 - Ongoing talks with more ISPs and foreign CDNs and OTTs
 - Equipment: initially donations
 - Location: RASH Data Center

Data Center: Location

- Rruga e Durrësit (road from center to airport), next to school «Qemal Stafa»



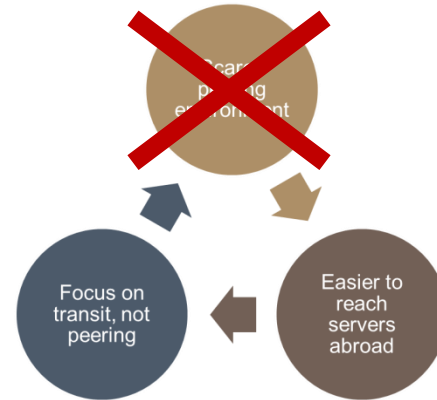
Data Center Features



- Two separate rooms already structured
 - Server room
 - Carrier / meet-me room
- N+1 UPS
- Generator
- On-site network engineers
- ATU fiber delivered on-site
- Possibility of other fiber access
 - Location close to main metropolitan fiber networks
 - Possibility of separate fiber access from rear street

Our goals

- Keep local traffic local
 - Stop long traces and high RTTs!
 - Promote locally hosted content
- Be a catalyst for the development of an ISP community in Albania
 - Neutral IXP
 - Network Operators Group
 - ISP Association
- We are planning to have an ISP meeting in Sep/Oct in Tirana
 - Launch the IXP
 - Light the first spark for NOG and ISPA
- We are getting a lot of external support
 - RIPE NCC
 - ISOC
- **If you are an Albanian ISP, come talk to us!**



Q&A

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