

# Euro-IX Route Server Workshop

Turin Tuesday 21st 10:00 - 18:00

Wednesday 10:00 - 14:00

## Attendees

1. Stavros (AMS-IX)
2. Irene (LU-CIX)
3. Mo (LINX)
4. Alexander Kirk (LINX)
5. Claudio (OpenBGPd)
6. Maria (BIRD)
7. Lorenzo (TOP-IX)
8. Harald (VIX)
9. Liviu (VIX)
10. Simone (MIX)
11. Marta Burocchi (NameX)
12. Francesco Ferreri (NameX)
13. Anton Rieger (DE-CIX)
14. Johannes Moos (DE-CIX)
15. Marinos Dimolianis (GR-IX)
16. Marian Rychtecky (NIX.CZ)
17. Will van Gulik (RomandIX)
18. Kevin (NL-ix)
19. Alessandro (TOP-IX)

## Top-IX Address

TOP-IX Consortium  
Via Maria Vittoria 38  
10123 Turin (TO)  
Italy

## Monday Dinner:

**Mare Nostrum Ristorante, Via M.Pescatore 16/F, 10124 Torino 21:00 CET**

If you are joining us for dinner on Monday 20th March, please add your name here:

Bijal, Will, Mo, Alex, Maria, Claudio, Stavros, Irene, Harald, Liviu, Marinos, Marian(last minute, sorry), Kevin (super last minute)

**Tuesday Dinner:**

**Ballatoio bistro, Via Principe Amedeo 22c, 10121 Turin 20:00 CET**

If you are joining us for dinner on Tuesday 21st March, please add your name here:

Bijal, Will, Mo, Alex, Anton, Johannes, Kevin, Maria, Claudio, Stavros, Irene, Marian, Marinos, Harald, Liviu, Marta, Francesco, Lorenzo, Alessandro

**Dietary Requirements:**

Please list name and your allergies etc here:

- Maria: no gluten please (*senza glutine por favore*)

**Hotel Options:**

1. [https://www.nh-hotels.com/hotel/nh-collection-torino-piazza-carlina?campid=8435708&gclid=CjwKCAiA\\_6yfBhBNEiwAkmXy59OmR30uOOFEd2WYDqeATvmDrkyUMHDkIAKFJYzFekYaJwfDww1-aRoCK2kQAvD\\_BwE&gclidsrc=aw.ds](https://www.nh-hotels.com/hotel/nh-collection-torino-piazza-carlina?campid=8435708&gclid=CjwKCAiA_6yfBhBNEiwAkmXy59OmR30uOOFEd2WYDqeATvmDrkyUMHDkIAKFJYzFekYaJwfDww1-aRoCK2kQAvD_BwE&gclidsrc=aw.ds)
2. [https://www.booking.com/hotel/it/residenza-dell-39-opera.en-gb.html?aid=304142&label=gen173nr-1FCAEoggl46AdIM1gEaFCIAQGYARS4AQfIAQzYAQH4AQYIAgGoAgO4ArG0rp8GwAIB0gIkZDdkYjdhYzltZmUzOS00Nzc5LTlhMTktNWNiM2RINjc0YzQ22AIG4AIB&sid=baeb022452f814ffd0d3f9288671a376&atlas\\_src=sr\\_iw\\_btn:checkin=2023-03-29;checkout=2023-03-30;dest\\_id=0;dist=0;group\\_adults=1;group\\_children=0;highlighted\\_blocks=134344103\\_85991965\\_2\\_0\\_0;no\\_rooms=1;room1=A;sb\\_price\\_type=total;type=total;ucfs=1&](https://www.booking.com/hotel/it/residenza-dell-39-opera.en-gb.html?aid=304142&label=gen173nr-1FCAEoggl46AdIM1gEaFCIAQGYARS4AQfIAQzYAQH4AQYIAgGoAgO4ArG0rp8GwAIB0gIkZDdkYjdhYzltZmUzOS00Nzc5LTlhMTktNWNiM2RINjc0YzQ22AIG4AIB&sid=baeb022452f814ffd0d3f9288671a376&atlas_src=sr_iw_btn:checkin=2023-03-29;checkout=2023-03-30;dest_id=0;dist=0;group_adults=1;group_children=0;highlighted_blocks=134344103_85991965_2_0_0;no_rooms=1;room1=A;sb_price_type=total;type=total;ucfs=1&)
3. [https://www.booking.com/hotel/it/estella-luxury-suites.en-gb.html?aid=304142&label=gen173nr-1FCAEoggl46AdIM1gEaFCIAQGYARS4AQfIAQzYAQH4AQYIAgGoAgO4ArG0rp8GwAIB0gIkZDdkYjdhYzltZmUzOS00Nzc5LTlhMTktNWNiM2RINjc0YzQ22AIG4AIB&sid=baeb022452f814ffd0d3f9288671a376&all\\_sr\\_blocks=315001201\\_209001589\\_1\\_0\\_0;checkin=2023-03-20;checkout=2023-03-22;dest\\_id=-130938;dest\\_type=city;dist=0;group\\_adults=1;group\\_children=0;hapos=1;highlighted\\_blocks=315001201\\_209001589\\_1\\_0\\_0;hpos=1;matching\\_block\\_id=315001201\\_209001589\\_1\\_0\\_0;no\\_rooms=1;req\\_adults=1;req\\_children=0;room1=A;sb\\_price\\_type=total;sr\\_order=popularity;sr\\_pri\\_blocks=315001201\\_209001589\\_1\\_0\\_0\\_27140;srpoch=1676384958;srpvid=d57a65de605c01e6;type=total;ucfs=1&#hotelTmpl](https://www.booking.com/hotel/it/estella-luxury-suites.en-gb.html?aid=304142&label=gen173nr-1FCAEoggl46AdIM1gEaFCIAQGYARS4AQfIAQzYAQH4AQYIAgGoAgO4ArG0rp8GwAIB0gIkZDdkYjdhYzltZmUzOS00Nzc5LTlhMTktNWNiM2RINjc0YzQ22AIG4AIB&sid=baeb022452f814ffd0d3f9288671a376&all_sr_blocks=315001201_209001589_1_0_0;checkin=2023-03-20;checkout=2023-03-22;dest_id=-130938;dest_type=city;dist=0;group_adults=1;group_children=0;hapos=1;highlighted_blocks=315001201_209001589_1_0_0;hpos=1;matching_block_id=315001201_209001589_1_0_0;no_rooms=1;req_adults=1;req_children=0;room1=A;sb_price_type=total;sr_order=popularity;sr_pri_blocks=315001201_209001589_1_0_0_27140;srpoch=1676384958;srpvid=d57a65de605c01e6;type=total;ucfs=1&#hotelTmpl)

# AGENDA

Tuesday 21st March 10:00 - 18:00

Morning Session 10:00 - 13:00

1. News & Updates on Route Server work in the community
  - a. News / update from IXPs on RS work (if you're attending, please prepare an update)
    - i. Harald Michl - 15 years on, what have we learnt and how would we do things differently
    - ii. Anton/Johannes - DE-CIX RS/BIRD2 Upgrade
  - b. Report from RS developers
    - i. BIRD updates what's new by Maria
    - ii. OpenBGPd status update by Claudio

(LUNCH 13:00 - 14:00)

Afternoon session 14:00 - 18:00

2. Route Server Policy Discussions
  - a. RIPE news concerning IRR DB filters build
  - b. RIPE policy on using IRR databases for prefix generation
  - c. Presentation on NRTMv4 Protocol (draft-ietf-grow-nrtm-v4-01)
  - d. AOB on RS policies
3. BGP communities
  - a. Do we use RFC 1997 communities? (no-export, no-advertise,...)
  - b. LU-CIX case with F-root (201969)

- c. BGP communities: Status of extended communities and support only standard and large ones?
- d. Community based RTBH: Who, what, how?
- e. AOB on RS communities

## Wednesday 22nd March 10:00 - 14:00

### Morning session 10:00 - 14:00

- 1) Automation
  - a) Arouteserver - Pier Carlo Chiodi (virtual presentation)
  - b) Possible upstreaming of Ansible (or other automation) modules for BIRD configuration (Maria)
- 2) Monitoring of RS
  - a) Irene's discussion around monitoring, Looking glass, ECMP
  - b) Marino's presentation on birdseye extensions for presenting various statistics based on Large Communities
  - c) Marian's short presentation of BirdSpy and BirdBridge
- 3) Any other topics
  - a) Marinos open discussion on BFD
  - b) Anton; open discussion on current usage of MP-BGP, Single Session for IPv4+IPv6, also see <https://www.ripe.net/participate/policies/proposals/2023-01>
  - c) Maria: Europe's upcoming regulations – CRA + PLD (?)
  - d) Discussion: Enforcing minimum hold-time: pro/con; agreeing on a value

## Notes from the Workshop

### Day 1:

- Presentation from Harald (please add details/discussion points)
  - Some notes

- Presentation from DE-CIX (please add details/discussion points)
  - Some notes
- Presentation from NL-IX (please add details/discussion points)
  - Some notes
- Short talk from NIX.cz (please add details/discussion points)
  - Running RS in virtual environment - Proxmox can lead to swap RAM when running BIRD as VM. Then sudden memory access such as BIRD's reconfiguration may lead to time delays when recovering memory from swap.
- BIRD Update by Maria
  - Upstream package debian repo: <https://pkg.labs.nic.cz/doc/?repo=bird>
  - Won't implement BGP over QUIC
  - Feature request: OpenMetrics
  - Feature request: with import keep filtered, keep also BGP invalid routes (loops, bad nexthop, bad etc, ...)
- OpenBGPD by Claudio
  - Request to provide MRT table dumps for testing.
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- Route Server Policy Discussions
  - Some notes
- BGP communities
  - focus on large communities, push for them - Claudio
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## Day 2:

- Presentation from Pier
  - Some notes
- Maria Automation
  - Python Library for CLI
  - Upcoming API based on CBOR
  - Please send feature requests for python library
  - [maria.matejka@nic.cz](mailto:maria.matejka@nic.cz)
  - Existing libraries / tools?
    - Arouteserver
    - birdwatcher
    - bird\_exporter
- Irene Monitoring
  - ICINGA
  - Prometheus with birdexporter on Grafana
  - POC for a LG using Alice-Ig with birdwatcher

- Nrpe load, long loading times
- Consideration of removing Postgres and using backend memory
- Interested a lot in birdspy as well
- ECPM : Algorithm program implemented to find ECM on BIRD
  - Not implemented on LU-CIX side
  - After our discussions in the meeting, seems not a very used practice on RS
  - Not much control of the whole traffic manipulation in the big picture
- Marino's presentation on birdseye extensions for presenting various statistics based on Large Communities
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- Marian's short presentation of BirdSpy and BirdBridge
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- Maria Legislative
  - The acts themselves
    - <https://digital-strategy.ec.europa.eu/en/library/cyber-resilience-act>
  - Blog posts
    - <https://berthub.eu/articles/posts/eu-cra-practicalities/>
    - <https://eclipse-foundation.blog/2023/03/10/product-liability-directive-more-bad-news-for-open-source/>
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Tram & Train Photos by Maria:

<https://twitter.com/marenamat/status/1639370343927226375>