



**RIPE  
NCC**

## **IXP Traffic and Major Sports Events**

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EURO-IX | Bucharest | early 21th century

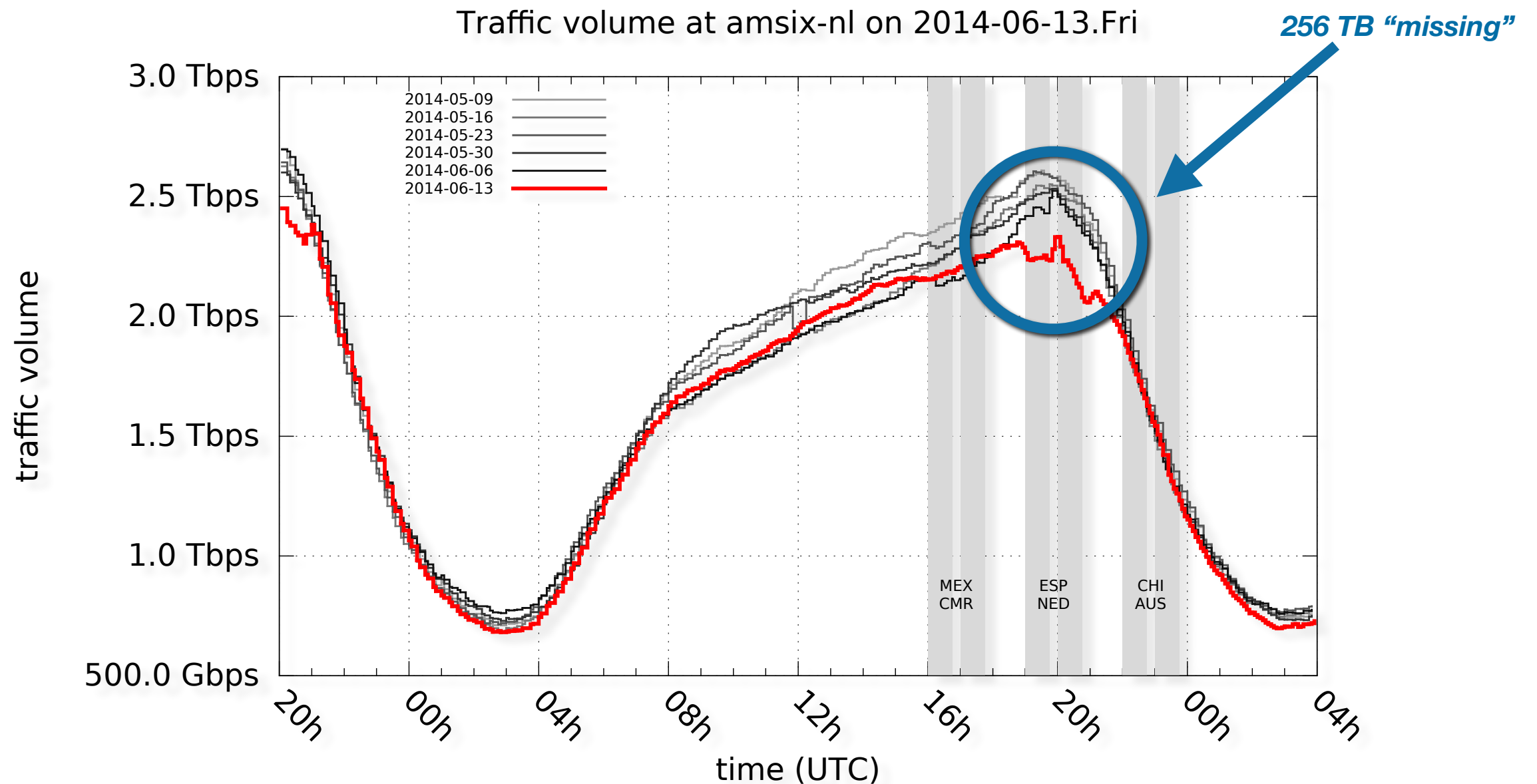
- RIPE NCC and EURO-IX cooperation
  - IXP traffic volume during major (sports) events
    - Football World Cup 2010 (South Africa)
    - Euro 2012 (Poland/Ukraine)
    - Football World Cup 2014 (Brasil)
- Traffic volume variations during matches
- Stats from participating IXPs

- It's fun :)
- Operational awareness
- Brings IXPs to the attention of whole new audience

- It's fun :)

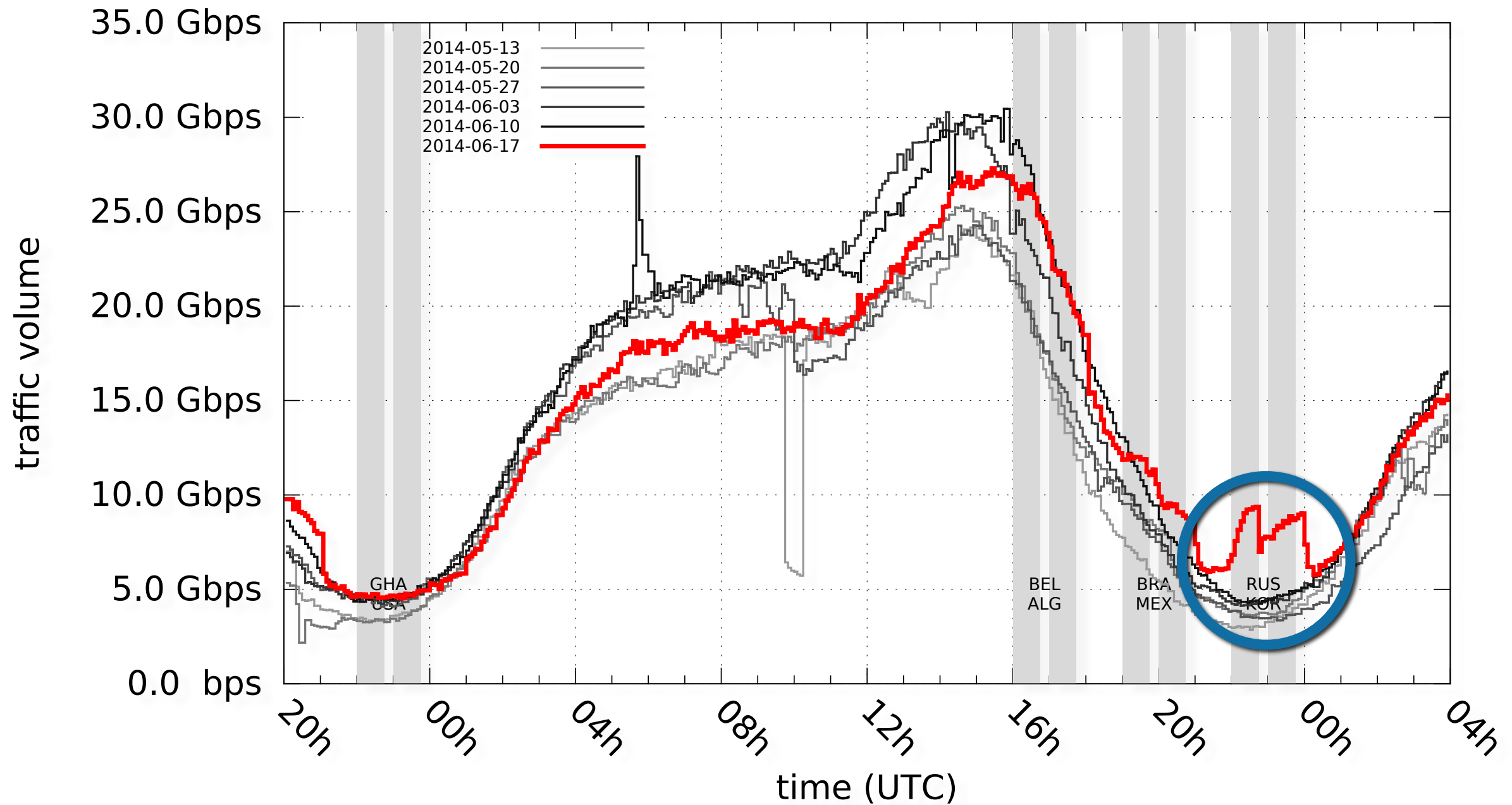


- IXP traffic quite often not a representative sample of Internet traffic for a location (city,country)
  - Makes it harder to grok for my dad
  - In-network Caches, PNI
- Human behaviour
  - Event causes human to generate packets or not?
  - Event causes shift in where packets go to:
    - streaming-video-of-match-traffic up, rest down?

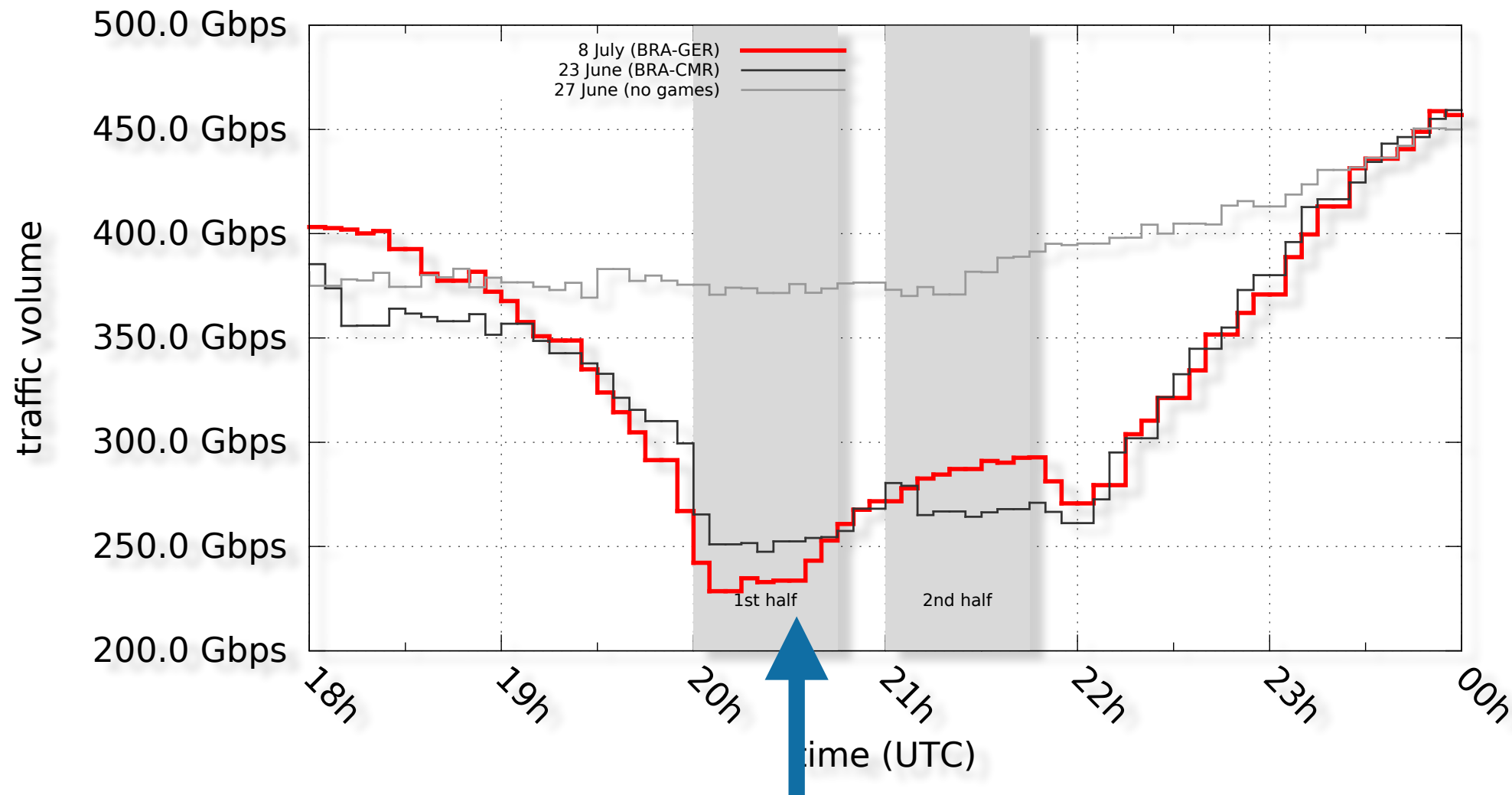


- “Double dip” even on larger IXPs (AMS-IX, DE-CIX, LINX, etc.)

Traffic volume at nskix-ru on 2014-06-17.Tue



Traffic volume at Sao Paulo IXP during Brazil-Germany compared to Cameroon-Brazil and non-game day



- Dramatic game, 7 DE goals, correlating to uptick in traffic in BR

- Full report at:

<https://labs.ripe.net/Members/emileaben/internet-traffic-during-the-world-cup-2014>

- Featuring

- Overtime
- Non IXP data sources
- First RIPE Labs article with picture of a cat



- <https://blog.twitter.com/2014/penalty-kicks-as-seen-through-twitter-data>



- Great coop between Euro-IX IXPs and RIPE NCC
  - Euro-IX asked for IXP volunteers to provide data
    - Many thanks for that!
  - Popular content on RIPE Labs
- Keep on going:
  - More of the same?
  - More direct IXP involvement?
  - Finer granularity, 1 minute, 30 second?
    - Better correlation to exact event, and structure of event.
- Other ideas?