

An IXP Perspective on Multicast

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Typical Peak Events at IXPs

- Typical traffic peaks at IXPs are driven by ...
 - Software updates
 - Game releases
 - Recently live streaming (e.g. football, Apple keynotes, sports in general)
- *Traffic flow*: CDN/CP → IXPs → ISPs
- All of these are use cases for multicast ...
 - ... and we are in the middle of the path



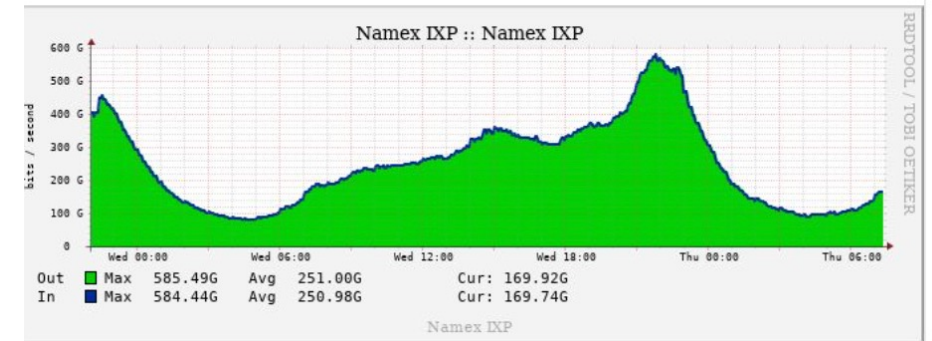
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Chief Technology Officer at Namex

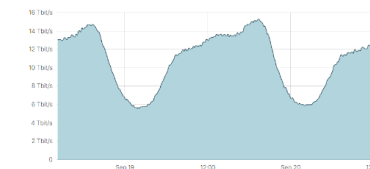
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It was a wonderful night for the Uefa Champions League and for Inter team qualifying for quarter finals. But even more, it was a wonderful night for [#Internet](#) traffic. The football match was broadcast by [#Amazon](#) Prime Video and then distributed in live streaming over Internet (through its own [#CDN](#) and others in support). Here is the traffic in Rome through [Namex](#), which with 585Gbps scores another goal! It's a record!

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15 Tbps – new traffic record at DE-CIX Frankfurt



On Wednesday night DE-CIX Frankfurt crossed the 15 Terabits per second (Tbps) line for the first time and set a new traffic record of 15.29 Tbps.*

Compared to 2022 when Frankfurt broke the 11, 12, 13, and 14 Tbps barriers, 2023 so far has not seen so many peaks. But in total, the data traffic has increased by almost 40% since the beginning of 2022 – and by 150% over the last five years.


Real life events behind

the peaks

[As we have also seen previously](#), football (soccer) has a big impact on data traffic and the peak on Wednesday happened

Haven't we done that already?

- More than 15 years ago, some IXPs (e.g. NAMEX) experimented with multicast
 - some members including the research network (GARR)
- Today, peeringdb lists exactly one multicast peering LAN with 0 peers
 - Reason: no interest, no volume
- But times have changed
 - Live broadcasting has moved online, e.g., German Bundesliga, Italian football major league (DAZN), UEFA Champion league (Prime Video)




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LONAP Multicast

Peers	Connections	Open Peers	Total Speed	% with IPv6
0	0	0		0

Organization	LONAP
Also Known As	
Long Name	
City	London
Country	GB
Continental Region	Europe
Media Type	Ethernet
Service Level	Not Disclosed
Terms	Not Disclosed
Last Updated	2020-01-22T04:24:07Z
Notes ?	



Long story short ...

- We would support a new attempt at multicast peering LANs ...
 - ... as we get occasional requests from ISPs

BUT

- We need to understand the demand from CPs and ISPs
 - Both sides need to commit to the technology
- We need to understand and solve technical obstacles for IXP members upfront