Covid-19 & IXPs
RIPE80, Connect-WG
Bijal Sanghani
The story of covid-19 & the impact on IXPs

• It all started week 18\textsuperscript{th} January 2020 when cases of the covid-19 virus appeared outside of China
• By mid February we were seeing more and more infections spread and cities & countries started to react
• We were going into a global pandemic and it was important for the community to come together early to share what was happening in other places
• Sadly the Euro-IX forum was postponed (later cancelled)
• We held our first online meeting on 13\textsuperscript{th} March and since then had 7 online meeting.
The story of covid-19 & the impact on IXPs

• Timeline – March
  • We first heard from MIX, NAMEX and TOPIX who were around 3 weeks ahead in terms of lockdown
  • Ireland the country and INEX the IXP took measures early and shared their planning how to safely get through the lockdown – pubs were closed for the first time on St Patrick’s Day
  • IXPs started working closely with their members, upgrading port capacity early, offering free ports during the crisis and offering to carry out remote hands to avoid contact
  • Government relations and communication was raised as IXP staff needed to have special access to leave their houses to visit data centers for critical work
• Timeline – March
  • By the end of March more countries were under lockdown and working from home
  • Local NOGs were coming together to support each other, ITNOG/UKNOF and others
  • IXPs traffic increase approx. 30%-50% and day/evening traffic balanced out possibly due to high bandwidth usage during the day, education, gaming and video
  • Concerns discussed; data center access, cable cuts, deliveries, cross connect prices

• And then there was a cable cut in South Africa and an Earthquake in Croatia!
The story of covid-19 & the impact on IXPs

• Timeline – April
  • Telecom Italia joined the three Italian IXPs in the first week of April!
  • Majority of IXPs were now working from home and community events were being done virtually or postponed/cancelled
  • It was becoming clear the situation was not going to improve any time soon
  • We started to see strange traffic patterns - some IXPs saw a decrease.
  • By April end we started to get used to the new ‘normal’.
The story of covid-19 & the impact on IXPs

• Timeline – May
  • While some work items, like non-essential upgrades were put on hold, it’s not sustainable and IXPs are planning this work. Business as the new normal..
  • We talked about keeping connected with colleagues and teams while working from home and the impact the crisis has had on the people.
Traffic at IXPs during covid-19

**DE-CIX North A...** 11/03/2020 We’re thrilled to share that [DE-CIX](https://twitter.com/DECIX) Frankfurt has set yet another new world record! This week on Tuesday evening, the IXP reached more than 9.1 Terabits per second of data traffic. [bit.ly/2IA01aN](https://bit.ly/2IA01aN) #peering #interconnection #worldrecord

**BNIX** @BNIX_BE 17/03/2020 BNIX, the heart of the Belgian Internet, has passed the 390 Gbit/s mark for the very first time yesterday around 2:30pm and today again around 11:00am! It clearly shows the impact of [LINX](https://linx-network.com) @LINX_Network

**AMS-IX** @AMS_IX

#Breakingnews: We reached the new traffic peak of 8 Terabits per second on Thursday! #Amsterdam #everyone was possible #ams/news

**INEX** @ComePeerWithMe

A new record at INEX this evening for traffic flowing over the exchange - 508.401Gbits [peeringisgoodforus](https://twitter.com/INEX) #peeringsisgoodforus

---

11:44 · 11/03/2020 · [TweetDeck](https://t.co/11277v09zZ)

29 Likes 10 Retweets

---

21:15 · 29/04/2020 · [Twitter for iPhone](https://t.co/9K96q1g4T8)

60 Likes 10 Retweets

---

[Day Graph](https://twitter.com/INEX/status/1252384189817315073)
Traffic and other IXPs related information

Yesterday our CEO @MaurizioGoretti @namex_ixp expressed COVID-19 in Italy friends from Asia. Exchange Association. Thank you to their Namex friend Kate Toyama. #apix #ix

After 4 weeks of #confinement, we observe the same #changes in #internet #traffic as our Italian colleagues @namex_ixp: 30-40% growth, #peaks during the afternoon instead of the evening... #Belgium #ixp #Peering #networks #COVID19Belgium #lockdown #BeSafe #StayConnected

If you need your #MondayMood lifted, not long to wait until the #LINX109 networking virtual social event this Wednesday, courtesy of the #DJsinTech! We hope to see you there 🎤acija 🎤acija #LINX #Peers #Beers #UnitingNetworks #Ignite

IX India saw a 9 minute decrease when the Indian government asked for the country to unite against the coronavirus by switching off all lights and lightning candles together. ow.ly/IRec50zaLwx #istoquegether #staysafe

Recordings of talks at our recent online meeting for members are now online. Nick Hilliard - INEX CTO on INEX Engineering Resiliency in a Pandemic and clinical psychologist, Dr Tim Green on Resiliency in a Pandemic – Dealing with the Stress of Covid-19

23:51 - 30/03/2020 · Tweet

22 Retweets 24 Likes
Conclusions – IXPs and Covid-19

• IXP are central to the interconnect solution and have the resilience and scalability to adapt quickly to the industry needs

• The openness and sharing is invaluable

• This was possible because of trust and relationships built over time and it’s important we find ways to continue to build these relations

• We’re all learning and adapting to this new way of life

• In the mean time, I’m thankful for this...
The story of covid-19 & the impact on IXPs
Thank You!

-euro-ix-