GLOBSEC
IDEAS SHAPING THE WORLD

COVID-19 IN CEE | WEEKLY ROUNDUP

This week's topic

INFECTING THE WORLD WIDE WEB

INFRASTRUCTURE CHALLENGES

Somebody ate a bad bat soup and suddenly the internet has gone from an important tool to a fundamentally critical infrastructure connecting us to the outside world. Internet that is keeping us afloat in these times of pandemic is just the same as it was before. We're just more dependent on it, with no other alternatives available.

We rely on it to carry out our jobs, to meet in virtual space, to school our kids, to provide our entertainment, to keep society running and salvage a modus vivendi from the pre-Covid days. In short, we are using it a lot.

As states have imposed lockdowns and social distancing measures came into effect in March, internet traffic has increased by more than 50% in some areas, according to Vodafone stats. Particular online services have led the charge in this unintended congestion: gaming platforms, social media, messaging and conferencing apps, streaming and shopping services. Zoom, for instance, has seen more new users in the first two months of 2020 than in the whole previous year, and the Microsoft Teams app gained 12 million new users in a single week due to the influx of people working from home.

CAPACITY AND FLEXIBILITY

Our connection to the World Wide Web is provided by a mosaic of datacenters and delivery networks underpinned by internet service providers (ISP) that are essential to the internet infrastructure. Besides adapting to increased traffic demands, these companies are now trying to adapt to changing usage patterns. Ensuring the network runs optimally means knowing where the traffic demand will originate from – where it aims to travel – and place the network capacity accordingly. The people connecting from home are the same people who are no longer doing so from the office. Vodafone's 50% increase in demand doesn't mean there are suddenly 50% more people trying to log in and go online. That's why ISPs and dot-com companies are confident there's sufficient capacity.

Cloudflare – a business that operates data centers in 200 cities across the globe – has visualized our connection habits. Exemplified with the maps of London and Paris, the green areas indicate growth in traffic and the red areas indicate where it has decreased between early January and late March 2020.
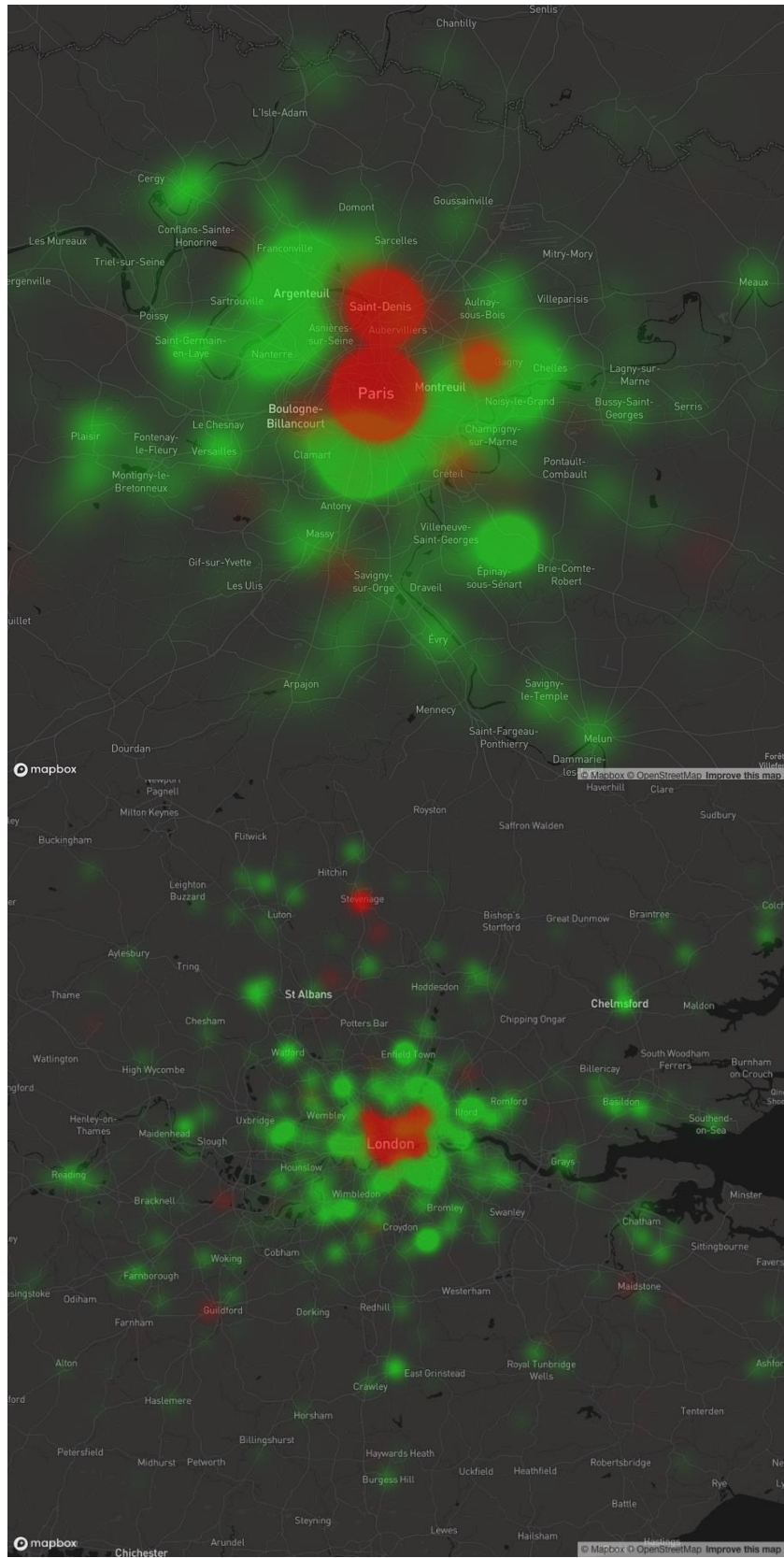
Whereas before, thousands of users connected through one high speed connection, now there are thousands of them connecting from home. Usage patterns have shifted from a large amount of centralized traffic coming from business centers or universities to a more distributed model with traffic increase scattered evenly in residential areas. If these changes turn out to be more than just a short-lived phenomenon, and coronavirus permanently alters our working, learning and entertainment habits, internet providers need to forecast when and where to build additional infrastructure.

THE RESPONSE

Besides traffic, the early days of quarantine also saw a surge in voice calls and volumes of data. Fearing that the internet and social media could collapse due to over-usage during lockdown, Germany's Federal network agency has issued **guidelines** to handle unexpected overload situations. In Poland President of the Office of Electronic Communications issued a **letter** to every network provider requesting them to take all the necessary steps to ensure continuity of data transfer. Similar story unfolded in **Austria** and **Spain**. EU commissioner Thierry Breton called upon video streaming companies to reduce the quality of their streams in Europe. To increase public awareness he started the **#SwitchToStandard** hashtag on Twitter, recommending lower definitions when HD is not necessary, in order to lower the pressure across networks. The UN's International Telecoms Union has launched a **global platform** to help policymakers, regulators and relevant stakeholders keep networks operational and available to all. These efforts include developing emergency plans, setting up monitoring systems, and providing emergency telecommunications equipment.

Despite all the worries, the internet seems to be chugging along just fine; these were all just-in-case measures to make sure we avoid the worst. Covid-19 is far from bringing the internet to its knees. Quite the contrary; the pandemic is genuinely driving the biggest virtual infrastructure development in years.

ISPs are increasing traffic capacity as well as reallocating capacity according to measured traffic loads, streaming services are making their servers more widely distributed, teleconferencing companies like Zoom are partnering up with local broadband providers to optimize their connection. Network monitoring company ThousandEyes has released a **real time internet outage map** to show the level of strain across the network. According to their report network outages are down more than 40% globally, compared to the spikes in March. Imagine if any other public utility such as electricity, water or transportation were forced to cope with such unprecedented growth, probably none of them would have done half as good job as the internet did.

ZOOMING IN ON V4

Non-profit network coordination center RIPE has organized the **Internet Health Hackathon**, which consists of ongoing open data analysis with regards to network delays during national lockdowns. The aim was to monitor and study congestion that could occur in large eyeball networks during mass quarantines. Eyeball networks refers to access networks whose primary users use the network to look at things (browse the internet, read emails etc.). Data shows a delay to the Google network, AS (autonomous system is a network or a collection of networks that are all managed and supervised by a single entity or organization), internet exchange point (IXPs represents physical infrastructure through which internet traffic is
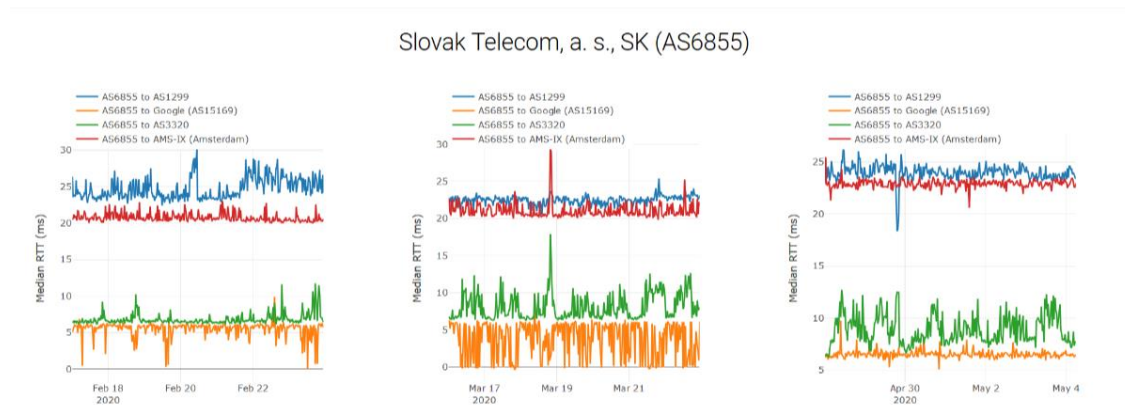
exchanged), namely Amsterdam IXP.

Graphs display delays before, during and after the lockdown. The delay is measured in Round-trip time (RTT) representing the time it took for a signal pulse or packet to travel from source to specific destination and back again. (if you're unsure what you're looking at here, watch this 3 minute eli5 explanation of how the internet works)


Visegrad countries experienced comparable delay during the lockdown. Slovakia can serve as a perfect case in point. Complete data for operators in other V4 countries is available here.

In general the delay during lockdown in the region oscillated around the same value lines as it did in the pre-Covid delay measurements, pointing to a mild slowdown throughout the lockdown period.

Internet Pressure in Major COVID-19 Countries
The impact of COVID-19 with **KASPR** Datahaus sub-national products

Internet Pressure, Thursday-Friday
(% Change in Return Trip Time, Mar 12-13 vs. Feb 13-14)
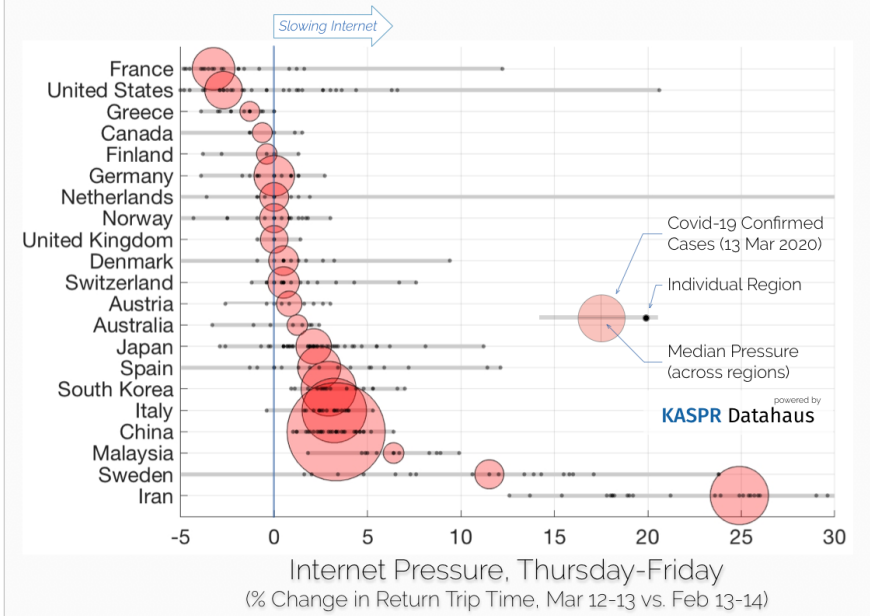
Other parts of the world went through more severe traffic delay during lockdowns. Sweden was the most effected EU country, with delay increase over 10% compared to pre-Covid speed.

Funny side note: instead of following the government established web **korona.gov.sk**, the Slovak digital footprint leads to a **different place**. It is unclear why Slovaks have resorted to using this particular search engine for Corona-related content. Nonetheless, it remains an interesting research subject for future historians.

GOOD NEWS EVERYONE, THE END IS NIGH
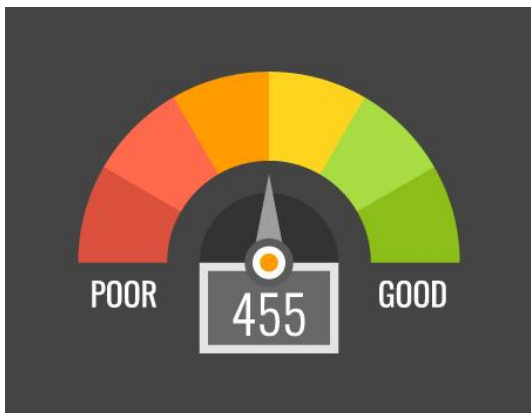
Many V4 residents have received a message from their operator on their company phone, making them aware of the activation of unlimited data on their device. This kind of developments seen in mobile networks are also true for fixed-line networks.

With so many people working and learning from home, network providers in V4 such as Orange, o2, T-Mobile, UPC and others are boosting the bandwidth for homes with slow connection, suspending data caps, or providing additional data. All of this free-of-charge without the need to request activation from the customer side. Imagine the bad rep a company would get for charging its customers with high over-usage fees because they had to work from home for weeks and exceeded their data cap. Cutting of essential service during an emergency is irresponsible, but making additional money out of it is downright toxic. Putting up some sort of waiver policy in place to avoid such a faux pas seems like a reasonable thing to do.

We've already established that capacity is not an issue, but if the providers and operators are able even temporarily to take off the data caps, that only further proves the point. The fact that data limits can be lifted and traffic-heavy activities such as streaming TV channels are exempted altogether speak volumes about the concept of data caps.

If there is plenty of capacity, why do we even have to deal with these artificial restrictions in the first place? ISPs would argue that malevolent actors and users will use it as an attack vector and abuse the system, causing overload and slowdowns. This might have been true in the past, but nowadays, with hundred-megabit connections becoming common, customers are having trouble maxing out their own connection.

CORONAVIRUS HAS CLAIMED ANOTHER VICTIM

Developments across the globe are materializing a new faster internet in front of our eyes; entire countries are now using unlimited data with bumped up internet speed. India's largest wired broadband provider has increased the speed for every user to 300Mbps free of charge.

In the USA, 723 telecommunications companies have signed the Federal Communication Commission's **Keep Americans Connected** pledge, easing their data usage limits. Main internet providers in UK removed data caps on fixed-line broadband. Similar stories are unfolding in **Lebanon**, **Mexico**, **Qatar** and plenty of other countries. Thanks to the pandemic, we are seeing an acceleration of the internet earlier than previously planned. The measures taken all around the globe indicate that cap amounts are completely arbitrary and in no way represent actual limits on available bandwidth. Lockdowns have served as a perfect testbed for pushing the bandwidth boundaries upwards, and while we're at it why don't we let the old internet die on this testbed? ISPs will have a hard time finding grounds on which they can re-establish pre-Covid restrictions. So once everything returns to normal, we should still be able to enjoy the fast and highly available internet services brought to us by Covid-19.

UPCOMING WEBINARS & EVENTS

COVID-19 as a stress-test for the Eastern Partnership resilience

15 May 2020 | 1pm - 2pm CEST

via ZOOM

The COVID19 crisis has revealed and amplified already existing vulnerabilities in the Eastern Partnership (EaP) countries. While resilience narrative has become the main theme of the European Commission proposal for the long-term objectives of the EaP beyond 2020, we would like to assess how the current crisis challenges the resilience of the state institutions and society in general. Read More

Register Here

Transatlantic Security Jam. Securing the post-COVID future
The Global Online Brainstorm

START: 12 May, 09AM Eastern Time / 3PM CET

END: 14 May, 11AM Eastern Time / 5PM CET

PLACE: IBM platform

In a three-day virtual global brainstorm on international security challenges, hosted by IBM and coordinated by The Partnership for Peace Consortium., GLOBSEC joins other think tanks, civil society organisations, universities, businesses and partners in a discussion tackling the topic of 'Securing the Post-COVID Future'.

[More](#)

WATCH OUR WEBINARS

NATO's deterrence and defence agenda

In a webinar organised by GLOBSEC, NATO Assistant Secretary General Patrick Turner discusses how NATO's deterrence and defence agenda are keeping allies safe, how the organisation is adapting to the struggles of the current COVID-19 pandemic and what potential threats it must prepare for going forward.

[Watch Here](#)

Election integrity (not only) during the COVID-19 pandemic
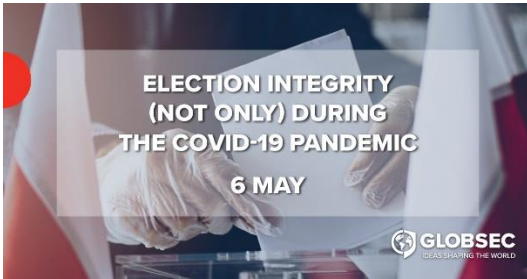
While the scientists keep warning that the virus might stay with us for many months to come, will the pandemic threaten the process of regular elections? Why did certain countries decide to hold the elections and how does it affect the public discourse, democratic processes and the election integrity overall?

[Watch Here](#)

NEW DEBATE SHOW ON INSTAGRAM

Every Thursday @ 7 pm CEST

Instagram | @globsecthinktank

GLOBSEC Young Leaders share their take on what the future holds and what topics will shape it once we go back to normal post-COVID.

[Watch Teaser](#)

JOIN COOPERATIVE SECURITY INITIATIVE

The **Cooperative Security Initiative**, powered by GLOBSEC and FES ROCPE, brings 19 questions for a safer future to your attention. Lend us your voice and share with us your thoughts on the future of security and cooperation in Europe and beyond.

Read More

FURTHER READS

Ukraine: Trust and responsibility in times of pandemic

by Alisa Muzergues

Ukraine has for more than six years been resisting military aggression from the Russian Federation on one front and fighting the inner enemy of corruption on the other. What challenges does the country face in the light of the COVID-19 pandemics?

Read More

Help people navigate the Infodemic: Central and Eastern Europe deserves a secure online space

by Dominika Hajdu

Many measures in content moderation are only partly applied to the smaller markets of Central and Eastern Europe, where COVID-19-related disinformation and manipulative content is happily traveling in the online information space.

[Read More](#)

GLOBSEC's **COVID-19 in CEE newsletter** is a weekly roundup targeting specific topics in connection with the spread of the coronavirus and its impact on life in the **CEE region**. Our researchers and experts will dive into many pressing issues the pandemic has brought to the fore, putting coronavirus developments and impact on the future of the EU, global economy, sustainability, digitalisation in context.

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WE WANT TO HEAR WHAT YOU'RE INTERESTED IN!

Do you have something you'd like to share with us for future Weekly Roundups?

Is there any specific topic you're interested in?

You can definitely share your suggestions with us on comms@globsec.org or reach

out to us on social media channels.

GLOBSEC Team