BEREC Summary Report on the status of internet capacity, regulatory and other measures in light of the Covid-19 crisis

In a joint statement with the European Commission, on 19 March 2020, on how network operators can cope with the increased demand of network capacity, BEREC committed to a special reporting mechanism to ensure regular monitoring of the Internet traffic situation in each Member State, in order to be able to respond swiftly to capacity issues. Furthermore, BEREC is collecting information on other measures implemented by National Regulatory Authorities (NRAs) as well as on other initiatives by public and private parties throughout Europe.

This report summarises the main findings of an ongoing, weekly information gathering exercise, and includes the most recent data provided to BEREC by its constituent NRAs as of 28 April 2020. 31[1] NRAs have shared their data about the impact of the crisis on electronic communications networks and the actions taken so far in their respective Member States.

Included in this summary report are updates on the status of internet capacity reported to BEREC by NRAs since the previous version of the internet capacity summary report (29 April 2020). From today (8 May 2020), this summary report will now also include information on other measures in the electronic communications sector implemented by NRAs, Governmental bodies and institutions and operators since the outbreak of the pandemic.

The status report will continue to be updated based on regular input from NRAs, with the next summary report due to be published on 15 May 2020.

1. Status of internet capacity

9 NRAs[2] have provided updates on the status of internet capacity in their Member State since the previous information gathering exercise (28 April 2020). Please refer to previous iterations of the internet capacity summary report for further details on some of the early measures applied by NRAs during the crisis.

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[1] The following NRAs have contributed so far to the information gathering exercises: AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, EL, ES, FI, FR, HR, HU, IE, IT, LV, LT, LU, ME, MT, NL, NO, PL, PT, RO, SI, SK, SE.

[2] NRAs from the following Member States having provided updates since the previous data gathering exercise: AT, BG, CY, HU, IT, LT, PL, RO, SI.

Key updates since previous report

- *One NRA (RO) has registered a slight increase in overall data traffic compared to mid-April. Elsewhere traffic situation remains stable, which three NRAs (LT, PL, SI) have reconfirmed this week. Another three NRAs (AT, BG, HU) have observed a slight decrease in data traffic since last week;*

- *Two NRAs (CY, IT) have also provided updates on the evolution of the internet traffic on fixed and mobile networks;*

- *Another two NRAs (HU, RO) have shared information about the peak hours;*

- *Three NRAs (CY, HU, PL) have explicitly confirmed some of the measures implemented by operators;*

- *One NRA (HU) has published a guide on a reasonable use of internet access services.*

1.1. Network issues raised by NRAs

In general, traffic on fixed and mobile networks has increased during the Covid-19 crisis, but no major congestion issues have occurred. For more than six weeks, a growing number of NRAs (AL, BE, CY, CZ, DE, DK, EE, EL, ES, FI, FR, HR, IE, IT, LT, LU, LV, MT, NL, PL, SK) have been reporting a stabilisation in overall traffic. In particular, a stable situation has been explicitly reconfirmed by three NRAs (LT, PL, SI).

However, one NRA (RO) has registered a slight increase in overall data traffic since the previous reporting in mid-April. Additionally, the same NRA has quantified the increase in data traffic since the outbreak of Covid-19, reporting that mobile data traffic increased by an average of approximately 6%, while fixed data traffic increased by almost 23% on average.

Although another NRA (IT) has registered a slight decrease for mobile data traffic intensity and an increase for mobile data traffic volume, it has observed a stabilisation in fixed data traffic intensity and a slight decrease for fixed data traffic volume during the period of 20-26 April 2020 compared to the week of 13-19 April 2020.

One NRA (CY) has reported that the fixed network data volume has remained stable while the mobile data volume has decreased compared to the week of 13-19 April 2020.

For more than two weeks, more and more NRAs (AT, BG, EL, HU, PL, RO, SI) have been detecting a decrease in overall internet traffic from the peak that was reached after the beginning of the Covid-19 crisis. Three of those NRAs (AT, BG, HU) have explicitly confirmed that data traffic keeps decreasing, but still remains at a higher level compared to the period before the outbreak of Covid-19. This trend suggests that there are three phases in the evolution of traffic during the crisis: sharp increase, stabilisation and a decrease from the peak. Consequently, overall internet traffic is beginning to revert to average levels more typical of the period before the start of the Covid-19 crisis.

Furthermore, two NRAs (HU and RO) have shared information about the peak hours. In HU, the NRA has observed that the weekday morning traffic (peak before 10 am) is stronger than usual. In RO, some ISPs have reported that peak hours have not changed, while others have specified the existence of several peak hours during the day.

Over the last three weeks, six NRAs (AT, DK, NL, PL, RO, SI) have explicitly reported an increase of traffic in the IXPs (Internet Exchange Points) since the beginning of the Covid-19 crisis. One of those NRAs (RO) has now stated that the overall traffic in the IXPs increased by between 8%- 21% since the outbreak of Covid-19. The same NRA has also reported a slight increase of interconnection traffic compared to the situation of mid-April. Two weeks ago, one NRA (NL) reported a stabilisation of traffic in the national IXP, whereas another NRA (PT) last week reported a slight decrease in interconnection traffic. In the current reporting period, one NRA (HU) has explicitly mentioned that national interconnection links are being expanded and that peering relationships are stable. Additionally, the same NRA has indicated that network quality indicators are at an acceptable level.

1.2. Regulatory actions taken

NRAs are monitoring the situation and are regularly collecting data from ISPs and other market players about the status of their networks. The frequency of collecting data ranges from daily (ES, ME) to once (AT, BG, CY, DE, EL, HR, LT, IE, IT, ME, MT, PL, SI), twice (BE, FR, HU, SK) or three (, LU) times per week. One NRA (RO) reported that because of a relatively stable situation, ISPs are requested to report overall information once every fortnight. However, any major incidents must be reported as soon as possible.

Besides periodical reporting, ISPs are also asked to immediately notify NRAs about any exceptional measures that are put in place. This is particularly relevant for the application of any exceptional traffic management measures. In mid-April, one ISP reported to its NRA (NL) that a network freeze and exception process is in place.

1.3. Actions taken and communication by operators

Following-up on the information already outlined in previous internet capacity summary reports, three NRAs (CY, HU, PL) have explicitly confirmed the following measures implemented by operators:

- increasing the amount of mobile data in subscriptions without any additional charge (CY, HU, PL);

- upgrading the upload and/or download speeds (CY);

- expanding the network's capacity continuously (HU) or when needed (PL).

Please refer to the previous iterations of this summary report for further details.

1.4. Further communication towards end-users

One NRA (HU) has published a guide on a reasonable use of internet access services.

2. Other measures taken by NRAs, public institutions and market players

2.1. Measures taken by NRAs

Consumer protection

Many NRAs initiated **information campaigns** for consumers about the responsible use of services in order to avoid network congestion. Consumers were provided with practical recommendations on the ways they can contribute to avoiding congestion issues and supporting access to essential information, teleworking and distance learning applications by abstaining from downloading large files or streaming high-definition videos during peak hours.

Several **consumer protection measures** have also been implemented, including asking operators not to take any actions against consumers who cannot (given current circumstances) settle their bills, information gathering about consumer care and retail operation, and tracking service outages at essential services sites (e.g. doctors' premises).

Disinformation and electronic communications

Some NRAs and governments stepped up their efforts against misinformation and are currently working on debunking conspiracy theories concerning the claimed links between 5G and Covid-19. In a broader perspective, some NRAs as well as governments have launched initiatives around disinformation, especially online, covering matters relating to Covid-19.

Spectrum

In some instances, NRAs suspended or postponed some planned or ongoing **procedures** such as spectrum tenders or releases of the 700 MHz band. In some cases, the latter are related to delays in DVBT2 transition, partly due to the need to ensure continuous DTT reception during the crisis, but they are also due to restrictions regarding movement and field operations in some Member States. Other actions relating to spectrum include the temporary assignment of radio spectrum to enable mobile operators to increase capacity.

Security

NRAs, other national authorities and operators have been jointly working towards ensuring the continuous availability of essential electronic communications services such as voice and internet access, especially for critical infrastructures, national services and systems. Some NRAs prompted operators to adopt contingency plans and to continually assess and mitigate risks regarding service continuity, integrity and security. In recent weeks, several NRAs reported attacks against electronic communications infrastructure (e.g. masts and Wi-Fi equipment) to which they responded by raising awareness on the dire consequences of such actions for the perpetrators and society at large. Furthermore, some NRAs have also issued warnings in response to an increase in fraud and cyber-attacks related to Covid-19.

Wholesale regulatory measures

A few NRAs adopted extraordinary wholesale measures in response to the crisis. Examples of specific measures adopted to improve conditions of service provision are:

- reduction in unit wholesale cost of the incumbent's copper and fibre Ethernet bandwidth,
- early opening of the incumbent's new fibre cabinet,
- fast provision of transport kits and VLAN,
- request to the incumbent to make its infrastructure available in the whole territory of the country,
- request to operators to increase bandwidth per consumer or voice interconnection capacity,
- postponement of earlier adopted measures on margin squeeze tests which would result in changes to the contracted prices during the crisis.

Temporary restriction of number portability

In some Member States, temporary restrictions on number portability, insofar as this would require the physical presence of technicians, have been adopted. Number portability that does not imply movement of the customer or professional intervention at the customer's premises is allowed. This means that most of the mobile number porting not sold in a fixed mobile convergent bundle is being carried out. On the contrary, only a limited amount of fixed number porting is allowed as this requires physical interventions in clients' homes.

In one Member State, additional measures have been adopted to complement the restrictions on number portability. On the one hand, operators are not allowed to issue extraordinary advertising campaigns on services that require number portability and mobile and fixed portability caps have been set to achieve the right balance between the new regulation and the State of Alarm situation.

Covid-19 number

In some Member States, specific numbers have been assigned to Covid-19 hotlines for medical purposes and to facilitate registrations for tests in order to avoid 112 congestion.

Other

Several measures aimed at suspending or lowering the burden of some administrative procedures have been implemented. These measures are intended to help operators focus on their core business during the pandemic.

2.2. Measures taken by public Institutions

Several NRAs reported on the general extraordinary emergency measures adopted in their Member State.

Public warning systems

Examples of such measures include, inter alia, using SMS or mobile applications for public warning systems and the usage, on a temporary basis, of master data and location data of mobile users to send push-SMS to users in certain regions (e.g. users within a village under quarantine), or to users with specific master data (e.g. users above a certain age).

Measures to trace movement of citizens

In some Member States, new legislation has been introduced requiring operators to share location data so that the relevant authorities can monitor compliance with restrictions on movement during quarantine or to enforce quarantine orders or, in other cases, to understand movements of the population and asses the health resources needed in every region. Another reported example of measures adopted is the use of a dedicated app to trace infected citizens based on the prior consent of the individual. Most of these apps use anonymised or pseudonymised data for tracking and recording the spread of the virus based on questionnaires, but some more recent apps (in use or in development) also use Bluetooth-based solutions to record contacts and warn users if they get close to an infected person.

Other

In general, national Governments are tending to encourage/require teleworking and are informing consumers about the responsible use of IAS from home. Several NRA responses also mentioned business continuity-related measures. One NRA reported on the postponement of enforcement procedures over monetary assets for three months (during the special circumstances) with the possibility of extension for a further three months.

2.3. Measures taken by market players

In some cases, operators temporarily suspended or restricted commercial activities or new installations that would require the physical presence of technicians (with exceptions for essential services sites).

In one Member State, an agreement was signed between the Government and telecom operators including a number of voluntary commitments to cope with the Covid-19 situation. These commitments aim at the implementation of measures to ensure the provision of services, especially with respect to the networks that support emergency services.