



Český telekomunikační úřad

Czech Telecommunication Office Report

**On Results of Monitoring of Compliance with Regulation (EU) 2015/2120
of the European Parliament and the Council of 25 November 2015, Laying
Down Measures Concerning Open Internet Access and Amending
Directive 2002/22/EC on Universal Service and Users' Rights Relating to
Electronic Communications Networks and Services and Regulation (EU)
No. 531/2012 on Roaming on Public Mobile Communications Networks
within the Union, Carried Out
between 1 May 2018 and 30 April 2019**

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1. Introduction

The Czech Telecommunication Office (hereinafter “CTU”), a national regulatory authority for electronic communications in the Czech Republic, prepared in accordance with Article 5(1) of the Regulation (EU) 2015/2120 of the European Parliament and the Council¹ (hereinafter “Regulation (EU) 2015/2120” or “Regulation”) a report on results of monitoring of compliance with the Regulation carried out between 1 May 2018 and 30 April 2019.

In the Czech Republic, a total of 1,952 electronic communications service providers provided the Internet access service through fixed networks and a total of 60 providers through mobile networks over the reference period. A total of 147 providers provided the Internet access service through both types of networks.

Over the reference period² there were in total 3,212,069 subscribers using the Internet access service through fixed networks and 8,711,716 end-users through mobile networks, including subscribers using the Internet access service at a fixed location through mobile networks (fixed LTE). This method of provision of the Internet access service has been growing in the past years. Over the reference period, a total of 282,985 subscribers used this method to access the Internet. Even mobile virtual operators registered a growth in the amount of end-users using the Internet access service, namely a total of 642,696 end-users.

Over the reference period, CTU conducted 175 inspections of contractual terms that included Internet access services with 144 providers of these services. Up until now providers cumulatively offering more than 72% of the fixed Internet access services were investigated, for mobile Internet CTU inspected contractual terms of providers with more than 99,5% of market share.

Based on further detailed facts found by CTU over the reference period within its supervisory power, it can be said, that in comparison with previous annual report the situation with implementation practice in the Czech Republic has stabilized and has been accepted, especially by the largest service providers, thanks to the continuous activity of CTU. Compared to previous years, CTU had not had to deal with some previously common deficiencies, whether with regards to the state of contractual terms, or the practices used by operators (traffic management measures beyond adequacy, linking services to specific terminal equipment, etc.), and with regards to the market share of large providers of Internet access services the situation significantly improved for a majority of end-users. The problems found by CTU concerned mainly small local providers of services who still do not have high level of legal awareness about the provisions of the Regulation.

Needless to say, that based on the findings CTU feels the need to adopt a regulation in the sense of Article 5(1) second sentence of the Regulation, which would define basic parameters of quality of service, so the end-users had a chance to easily compare offers from different providers, bearing in mind the newly adopted European legislation (Article 104 of the European Electronic Communications Code). CTU also considers a need to increase general knowledge of end-users on their rights according to the Regulation.

¹ Regulation (EU) 2015/2120 of the European Parliament and the Council of 25 November 2015, laying down measures concerning open internet access and amending Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services and Regulation (EU) No 531/2012 on roaming on public mobile communications networks within the Union

² The following figures were verified by CTU at the date of 30 June 2018.

2. CTU's Activities Aimed to Ensuring Compliance with the Regulation (EU) 2015/2120 Performed between 1 May 2018 and 30 April 2019

The Czech Telecommunication Office performed in the reference period following activities aimed to ensuring compliance with the Regulation (EU) 2015/2120.

2.1 CTU's Internal Activities

- Based on operational and practical knowledge gained from previous measurements of data parameters, the methodologies of the Czech Telecommunication Office were amended, namely "*Measurement of data parameters using TCP protocol*" and "*Procedure to measure and assess data parameters of fixed electronic communications network*". Both documents are publicly available at CTU's website.
- CTU carried on with the project of construction of Measuring System of Electronic Communications (hereinafter "MSEC") as a complex measurement infrastructure to monitor and check selected data parameters of fixed and mobile services. For the next phase is planned an expansion of a publicly available tool for end-users to measure current quality of Internet access services including a component to ensure cyber security.
- CTU conducted ca. 7,500 measurements of data parameters of quality of mobile services including launching a pilot operation of measurements of fixed networks (<https://www.ctu.eu/measuring-transfer-data-speed>).
- Approximately 60 CTU's employees were trained in the monitoring of compliance with the Regulation in order to ensure unified procedure of monitoring of contractual terms of Internet access service providers and of monitoring of measurements of data parameters.

2.2 CTU's External Activities

- CTU conducted 175 inspections of contractual terms with 144 Internet access services providers. CTU monitored contractual terms and practice of the service providers previously inspected and checked contractual terms of other significant regional service providers and mobile virtual operators. CTU requested information from 87 inspected service providers and discussed the ascertained deficiencies individually with 60 Internet access service providers. Within these discussions the service providers were informed about the ascertained deficiencies and CTU's current interpretation of the Regulation. CTU verified that more than 90% of the inspected service providers amended their contractual terms.
- CTU initiated 32 administrative proceedings due to a violation of the Regulation (EU) 2015/2120. A total of 9 administrative proceedings are still being held, 23 were closed by issuing a final decision.
- CTU continued to participate in the MoQoS project (www.moqos.eu), which aimed to enable comparison of data concerning availability and quality of highspeed Internet from end-users of mobile and fixed networks and to visualise the gained values. The project

ended on 31 December 2018. An application Open Nettetst, developed within this project to enable measurement of speed and other quality parameters, will be implemented into NetMetr application managed, with support of CTU, by an independent association CZ.NIC.

- In February 2019 CTU launched a pilot of a new visualisation tool (<https://qos.ctu.cz/>) enabling the end-users to compare the quality of services of selected operators. Currently it offers comparison of data services provided in mobile networks. An expansion to include also fixed Internet access service is planned.
- CTU carried out continuous monitoring of selected commercial practices of Internet access service providers, mainly zero-rating practices, and monitoring of the market situation in view of newly launched products.
- CTU carried out regular assessment of an amount and content of inquires and complaints from end-users related to Internet access services and published the results quarterly in its monitoring reports.
- CTU presented its recommendations related to the content of contractual terms and information about updated procedures and results of conducted measurements on various workshops and conferences aiming to raise legal awareness of Internet access service providers as well as end-users.

3. Types and Amount of Complaints Related to the Regulation (EU) 2015/2120

CTU strongly pays attention to continuous monitoring, assessment and resolving of inquires and complaints of end-users related to the fulfilment by service providers of the obligations set in the Regulation.

CTU have not registered an increase in the amount of complaints and inquires related to open Internet access services compared to previous observed period. The total amount of these complaints has been fluctuating by number of tens in the reference period representing approximately 1% of total amount of complaints on electronic communications services in terms of the quality and provision according to an agreement. In terms of content most complaints related to violation of quality parameters concluded in an agreement, restriction on choosing terminal equipment, or traffic management measures.

Despite a stable amount of complaints, CTU expects gradual increase of complaints due to an increase of the interest of end-users in quality parameters related to introduction of new services and applications using data connection. Also now tools enabling verification and comparison of the quality of service will contribute to an increase in the number of complaints.

4. Results of Inspections Conducted in Relation to Supervision and Enforcement of Compliance with the Regulation (EU) 2015/2120

As mentioned above, CTU conducted 175 inspections of published draft agreements on provision of Internet access with 144 Internet access service providers in the reference period. CTU conducted repeated inspections with 5 largest and 71 significant regional Internet access service providers with aim to verify removal of previously ascertained deficiencies. In the

second half of 2018, CTU inspected contractual terms of another 61 significant regional Internet access service providers and focused also on 7 largest mobile virtual operators offering Internet access service.

Among most frequent deficiencies in contractual terms of inspected Internet access providers ascertained by CTU were:

➤ Quality of service parameters

The most frequent deficiency was found in incomprehensible or unclear definition of quality of services parameters, whether in terms of setting the speeds according to Article 4(1)(d) of the Regulation, or in terms of their labelling differently from the Regulation (*connection speed, real speed*, etc.). Therefore, the end-users did not have a clear and comprehensible information on quality parameters of the offered service which then prevented them from verifying compliance with these parameters by the service providers, and from comparing such offered services. CTU also found deficiencies in insufficient definition of the effect of significant difference from advertised speed and insufficient explanation of remedy tools available to end-users in case of significant and continuous or regularly recurring difference from actual performance of the service.

➤ Terminal equipment

Some providers linked the option of choosing the terminal equipment with fulfilment of conditions which could limit end-users' right to choose the terminal equipment, such as authorisation of the end-user's equipment by the provider, option to use the service only in mobile devices, or guarantee of quality of the service only in case of using the equipment of the service provider, etc.

➤ Traffic management measures

In contractual terms, mainly by small service providers, there was insufficient and unclear definition of measures of reasonable traffic management and their impact on the quality of the Internet access services. The provisions in the contractual terms were unclear in the sense of whether the traffic management measures are applied only for absolutely necessary period in terms of derogations exhaustively listed provided in Article 3(3)(a)–(c) of the Regulation (EU) 2015/2120.

➤ Restrictions on data volume, speed and other quality parameters

In contractual terms, also mostly by small service providers, there was incomprehensibly stated for which purpose and type of application the offered service was suitable.

➤ Specialized services

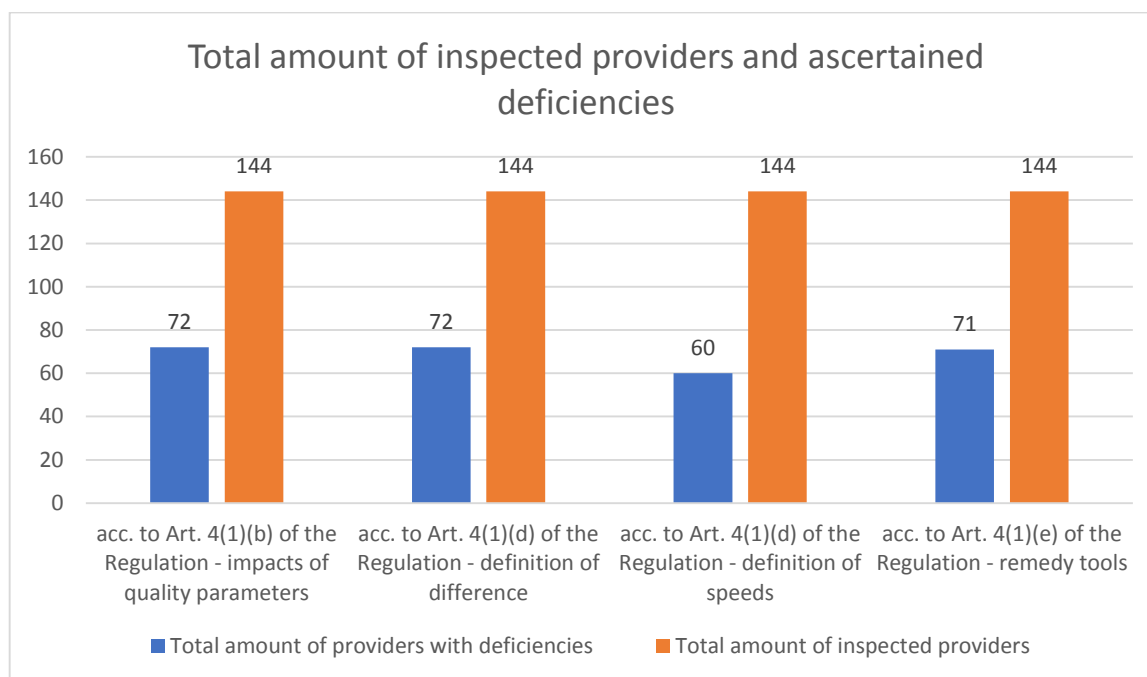
Small service providers failed to sufficiently define the impact of simultaneous use of specialized services on the Internet access service.

➤ Remedies

A common issue found by CTU during the inspections was a certain dual regime in which the remedies are established by service providers. End-users can usually report a technical failure of the service (non-functioning, non-compliance of agreed performance, etc.), and subsequently file a complaint to claim adequate price reduction or alternative provision of the service. CTU found during the inspections, that end-users are usually forced to apply both remedy tools, i.e. reporting the failure, as well as filing a complaint. Reporting technical failure is not usually considered by providers as filing a complaint (therefore they do not provide compensation in such case).

On the following diagram you can see the type and amount of ascertained deficiencies.

Diagram No. 1: Amount of inspected Internet access service providers with deficiencies according to articles of the Regulation (EU) 2015/2120, in comparison with the total amount of inspected Internet access service providers



Ascertained deficiencies were resolved with inspected providers mainly in a form of discussion similarly to the previous period. In the reference period CTU held discussions with a total of 60 service providers and the ascertained deficiencies in the provisions of the contractual terms were either removed after CTU's intervention by the service providers within self-regulation, or subsequently in administrative proceedings.

During the reference period more than 90% of inspected Internet access providers amended their contractual terms in accordance with the Regulation (EU) 2015/2120.

In cases where a violation of the Regulation, which was qualified as an offence under the Electronic Communications Act, was found, CTU initiated an administrative proceeding. A total of 32 administrative proceedings were initiated, out of which a majority represented a joint proceeding and related to a violation of a number of provisions of the Regulation. In 9 cases the proceedings are still in progress, a final decision was delivered in 16 cases and 7 administrative proceedings were suspended during the proceedings (see Table No. 1).

Table No. 1: Number of administrative proceedings and the actual state as of 30 April 2019

Administrative Proceeding	Total Amount of Administrative Proceedings	Final Decisions	Still in Progress	Suspended Proceedings
on imposing an obligation to amend contractual terms	18	10	2	6
on offence	7	2	4	1
on imposing obligation to amend contractual terms and on offence	7	4	3	-
Total	32	16	9	7

5. Results of Monitoring of Certain Commercial Practices Offered by Internet Access Service Providers in Relation to Supervision and Enforcement of Compliance with the Regulation (EU) 2015/2120

Under its supervisory power, CTU has been monitoring selected commercial practices of Internet access services providers, especially zero-rating practices and data traffic management measures. When assessing the compliance of these commercial practices with the Regulation (EU) 2015/2120 CTU focused mainly on securing an equal and non-discriminatory handling of traffic, on whether there were situations when the end-users' choice was in fact limited, and whether the essence of end-users' rights under Article 3(1) of the Regulation (EU) 2015/2120 was not endangered.

In the Czech Republic, the offer of zero-rated services increased during the reference period, in comparison with the previous period mainly by cloud services and variously combined bundles of services (music, video, social networks, text messages). Zero-rating of selected applications and services is offered either without charges to a certain tariff or a pre-paid service or is charged as a complementary service or bundle to existing tariff or pre-paid service. Providers have been offering free specialized data bundles, which can be used only for pre-determined purpose (e.g. transfer of data for using social network services). However, that is not a typical zero-rating practice. Within its supervisory power, CTU pays attention to compliance of offered zero-rated services with criteria provided in Article 46 of BEREC Guidelines on the Implementation by National Regulators of European Net Neutrality Rules (hereinafter "BEREC Guidelines"). CTU mainly ensures that end-users always have access to the entire content on the Internet based on their tariff plan and that the services are not restricted only to those included in zero-rated offer. CTU also oversees a maximum openness of the system of zero-rated offers to application developers and content providers and ensures that the Internet access providers do not impose any restrictions, conditions or charges, except necessary technical cooperation.

Within its monitoring power, CTU also ascertained as problematic provisions in contractual terms in which the Internet access service providers reserved a right to perform optimization of data transmission with the aim to secure availability of quality of services for all users. CTU conducted in this regard technical measurements, which did not prove a suspicion of application of traffic management measures contradictory to Article 3(3) of the Regulation (EU) 2015/2120. Based on CTU's call, the contractual terms were amended and the provisions, based on which some service providers reserved the right to use such traffic management practice, were removed.

6. Technical Monitoring of Networks and Results of the Technical Measurements Including their Assessment in Regards of Compliance with the Regulation (EU) 2015/2120

When it comes to technical monitoring and performing a measurement, it is worth to mention, that for monitoring and measuring the quality of Internet access service in fixed networks, CTU uses certified technology (manufactured by EXFO), which was implemented during a project in September 2018 to the newly constructed system MSEC (*Measuring system of electronic communications*). Measurements of selected data parameters of fixed networks are done through measuring terminals EXFO, which are synchronized with a measuring server located in peering node NIX.cz and included in MSEC.

These measurements are performed under amended methodical procedures “*Measurement of data parameters using TCP protocol*”³ and “*Procedure to measure and assess data parameters of fixed electronic communications network*”⁴. These procedures were amended after a public consultation and on basis of operational and practical knowledge from existing data parameters measurements.

In February 2016, CTU launched a pilot operation of a tool projecting measured (and calculated) values of radio signal coverage of mobile networks and measured values of selected data parameters, which is publicly available at qos.ctu.cz (in English version as well). With this application the end-users can compare signal availability and quality of mobile providers’ services. Even though it is still running in pilot operation, it offers comparison of mobile communications services and in the future is expected its use for fixed networks at a fixed location. The application shows results of the measurements performed by CTU, measurements of end-users using NetMetr tool or other resources. The main contribution of this application is the option of effective comparison of services, including their quality, provided by individual operators, including clear graphic form.

Another tool enabling end-users ascertain and compare quality of services is application Open Nettetst developed during MoQoS project. Beside measurement of data download and upload speed, the application also provides option to perform other tests focused on evaluation of quality of connection. Engine (the application core) and other functions will be transferred to NetMetr application, which is currently run, with support of CTU, by independent association CZ.NIC.

CTU also expanded its technical possibilities in the reference period allowing it to identify traffic management measures adopted by Internet access services providers, or to ascertain insufficient capacity of distribution point in fixed networks. This method follows ITU-T Y.1564 standard, on which Annex 2 to “*Procedure to measure and assess data parameters of fixed electronic communications networks*” is based. The method is based on the accessibility test defined by maximum speed of the Internet access service according to the Regulation (EU) 2015/2120, which is subsequently compared with measured information speed through calibrated measuring tool EXFO with dedicated hardware.

Based on inquires related to suspicion of violation of Article 3(3) of the Regulation (EU) 2015/2120, CTU conducted several concrete measurements. The first case concerned a formal inspection of suspicion of use of traffic management measures (or regulation of quality of service) within roaming in the Czech Republic, mainly regulation of speed of transferred data with Internet mobile access. Furthermore, CTU inspected if the qualitative parameters of provided zero-rated services are not optimized, mainly for network protection. Another inspection examined if mobile virtual operators providing a benefit in a form of increased data volume, which can be used only by pre-determined applications, block Internet access service after using up of the basic agreed data volume or enable further Internet access for these selected applications. However, no violation of the Regulation (EU) 2015/2120 was found during the inspections. CTU also verified, if some selected ports of mobile networks are not being blocked. These measurements did not prove any deliberate blocking by Internet access services providers.

Under monitoring of compliance with Article 4(1)(c) of the Regulation (EU) 2015/2120, CTU conducted technical measurements related to so-called specialized services (specified in Article 3(5) of the Regulation). Concerning the technical monitoring of networks, CTU is

³ <https://www.ctu.eu/sites/default/files/obsah/stranky/61086/soubory/methodologytcpn.pdf>

⁴ <https://www.ctu.eu/sites/default/files/obsah/stranky/61086/soubory/methodologyfixednetworksen.pdf>

currently able to verify the quality of multicast IPTV and VoIP service in fixed networks. CTU initiated verification of the impact of specialized services on the Internet access service and qualitative parameters in fixed networks. These measurements should result in a study of the impact of specialized IPTV service on the Internet access service. Based on the results, CTU expects to elaborate a methodology for measuring and evaluation of specialized services in fixed networks (multicast IPTV, VoIP).

7. Adopted and Applied Measures According to Article 5(1) of the Regulation (EU) 2015/2120

In the reference period the Czech Telecommunication Office have not used its power arising from Article 5(1) of the Regulation and have not set any further requirements in regards of technical parameters and minimum requirements on the quality of services, which would lead to ensuring compliance with provisions of the Regulation (EU) 2015/2120 or prevention of deterioration of the general quality of Internet access services for end-users.

As mentioned in previous Reports on Results of Compliance with the Regulation (EU) 2015/2120, in order to ensure unified application of the Regulation, CTU published its statement on the net neutrality rules on its website in March 2017. This document entitled “*Statement of CTU on Selected Questions Related to Open Internet Access and European Rules on Net Neutrality*”⁵ (available only in Czech language) specifies data transfer speed determined by the type of Internet access service, and also defines detectable change in performance of the Internet access service and repetitive differences from actual performance of the service from transfer speed values agreed on in a contract. However, the document is not legally binding for Internet access services providers.

The results of supervisory activities and practical knowledge of CTU implies that the definition of performance of a service in terms of speed according to Article 4(1)(d) of the Regulation (EU) 2015/2120 is quite varied and inconsistent, albeit not always in accordance with Articles 3 and 4 of the Regulation. This deteriorates the possibility of end-users to objectively compare individual offers from Internet access service providers and consequently causes measuring problems and hinders the option to use remedies in case of deficiencies or non-compliance of agreed performance of the service. Based on these findings and in terms of implementation procedure of the Regulation expected by BEREC Guidelines, CTU initiated preparation of public consultation to envisaged binding settlement of basic qualitative parameters of Internet access service and interrelations, namely minimum, generally available, maximum and advertised speed of Internet access services in fixed networks and estimated maximum and advertised speed for mobile networks as well as definition of the maximum permissible differences from actual performance of the service.

Current quality parameters specified by CTU allowed the end-users only to create basic overview of quality of provided service and perception of differences between individual commercial offers of Internet access service. CTU currently prepares a measuring tool, which will be available at its website and which would allow the end-users to ascertain and verify real performance of their Internet access service. If the real performance of the provided Internet access service does not comply with the values previously claimed by the provider and agreed on in a contract, this tool will allow the end-users to demand a remedy immediately.

⁵<https://www.ctu.cz/sites/default/files/obsah/stranky/956/soubory/vyjadreniceskehotelekomunikacnihou radukvybranymotazkampristupukotevrenemuinternetuaevropskympravidlu.pdf>

In the reference period, CTU amended methodology “*Measurement of data parameters using TCP protocol*” and “*Procedure to measure and assess data parameters of fixed electronic communications network*” based on operational and practical knowledge from previous measurements of data parameters. The results of measurements conducted on the grounds of these amended procedures allow their comparison between individual networks. By publication of these methodologies, CTU transparently declared its procedure used for monitoring and measurements.

In the upcoming period, CTU will complete and publish a study on the impact of specialized services on the quality of Internet access service. CTU will initiate routine measurements of quality of services and will publish results of these measurements also via the visualisation tool.

CTU will continue to monitor commercial practices of service providers, mainly of zero-rating, and other traffic management measures and possible optimization of data flows for selected services and their legitimacy according to Article 3(3) of the Regulation.

Since the constant application practice in the Czech Republic implies that end-users do not always use their rights according to the Regulation to the full extent, CTU prepares, in order to increase their awareness and general knowledge of their rights securing access to open Internet, a publication of a recommendation informing the end-users about the obligatory provisions of contract on provision of Internet access service, legitimate and forbidden practices of service providers and available remedy measures in case of non-compliance of agreed performance of the service.