

# Net Neutrality at IP Interconnection Level?

## Scope Limits of the Open Internet Regulation: A Case for Competition Law

Christian Koenig and Anton Veidt\*

*According to the opinion of the Body of European Regulators for Electronic Communications (BEREC), national regulatory authorities (NRAs) shall also take into account Internet protocol (IP) interconnection practices of Internet access service providers when applying Regulation (EU) 2015/2120 (Open Internet Regulation, OIR). Challenging BEREC's arguments, this article shows that IP interconnection is outside the regulatory scope of the net neutrality provisions of the OIR. Rather, in accordance with the clear intention of the EU legislator, interconnection practices are only subject to general telecommunications law and competition law. The requirements for market intervention under competition and regulatory law must not be undermined by measures of NRAs based on the OIR. Such measures would exceed the competences of NRAs within the framework of the OIR.*

*Keywords: net neutrality; IP interconnection; open internet regulation; electronic communications*

### I. Introduction

Regulation (EU) 2015/2120<sup>1</sup> (Open Internet Regulation, OIR) lays down net neutrality obligations for the provision of Internet access services and aims to protect end-users from "discriminatory" traffic management measures by providers of Internet access services (ISPs). According to its Guidelines on the Implementation of the Open Internet Regulation (BoR (22) 81, BEREC Guidelines), first published in 2016, the Body of European Regulators for Electronic Communications (BEREC) assumes that the practices of ISPs at the Internet protocol (IP) interconnection level are also covered by the regulatory scope of the

OIR.<sup>2</sup> BEREC recently reaffirmed this view in its Report on the IP Interconnection Ecosystem.<sup>3</sup> The report suggests that actions by ISPs towards content and application providers (CAPs) and providers of content delivery networks (CDNs)<sup>4</sup> at interconnection points to the ISP's network should also be within the scope of the OIR if these actions adversely affect end-users open Internet access. According to BEREC, this should, in particular, include situations where the quality of specific content, applications, and services used by the end-user is degraded (so-called acts of circumvention of the OIR in the context of interconnection).<sup>5</sup> This could – in theory – be achieved by ISPs manufacturing an artificial scarci-

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\* Professor Dr. Christian Koenig LL.M. (LSE) is Professor of Law and Director of Centre for European Integration Studies (ZEI) at University of Bonn, Germany. Dr. Anton Veidt is a Research Assistant at ZEI and Trainee Lawyer at the Regional Court of Bonn, Germany. This article is based on a legal opinion for a German provider of Internet access services. For correspondence: <profkoenig@gmx.de> and <anton.veidt@gmx.de>.

<sup>1</sup> Regulation (EU) 2015/2120 of the European Parliament and of the Council of 25 November 2015 laying down measures concerning open Internet access and amending Directive 2002/22/EC on universal service and end-users' rights relating to electronic

communications networks and services and Regulation (EU) No 531/2012 on roaming on public mobile communications networks within the EU (OJ L 310, 26.11.2015, 1-18).

- <sup>2</sup> BEREC Guidelines, para 6.
- <sup>3</sup> BEREC Report on the IP Interconnection Ecosystem, BoR (24) 177.
- <sup>4</sup> In the following, the focus is mainly on CAPs as interconnection partners.
- <sup>5</sup> Cf. BEREC Report on the IP Interconnection Ecosystem, BoR (24) 177, p 39, with reference to certain interconnection disputes involving Deutsche Telekom.

ty of network capacity at interconnection links with certain CAPs, thereby “forcing” them to make a financial contribution to the capacity expansion of these interconnection links. One conceivable regulatory response by NRAs under the OIR, assuming its applicability, could be to impose specific network access conditions at interconnection level. This could have major consequences for interconnection practices of ISPs and CAPs and, in turn, on the quality, availability, and affordability of content and applications, as well as Internet access services for end-users.

Traditionally, ISPs (including “pure” network operators) interconnected their networks through transit or peering agreements. Transit is typically a bilateral agreement whereby an ISP provides full connectivity to the Internet for upstream and downstream transmission of traffic on behalf of another ISP, including an obligation to carry traffic to third parties.<sup>6</sup> It sells access to all destinations in its routing table. Transit is a wholesale product against payment of a fee. Peering is a bilateral agreement between ISPs to carry traffic for each other and for their respective customers.<sup>7</sup> Peering does not include the obligation to carry traffic to third parties. Traffic exchange typically occurs settlement-free, but paid peering also occurs in cases where data flows between networks reach a certain level of asymmetry. Nowadays, large CAPs (eg Meta, Google, and Amazon) that have built their own network infrastructure also directly interconnect with ISPs to reach their end-users.

From a regulatory perspective, the IP interconnection market has received little attention for many years. Only isolated disputes over interconnection conditions – particularly between large CAPs and ISPs – occurred, which have regularly been resolved without regulatory intervention.<sup>8</sup> However, due to the political debate on the contribution of large CAPs to network expansion costs of network operators (“fair share” debate)<sup>9</sup> and the legal dispute between Deutsche Telekom and Meta over the compensation for the use of transit/peering capacities,<sup>10</sup> the IP interconnection market appears to be gaining in regulatory relevance. Against this background, this article addresses the question of whether national regulatory authorities (NRAs) are authorised to impose obligations (notably capacity expansions without remuneration) on ISPs at IP interconnection level on the basis of the OIR in accordance with the opinion of BEREC. This would only be the case if this wholesale service level falls within the regulatory scope of

the OIR instead of being subject only to the regime of general competition law and telecommunications regulation under Directive (EU) 2018/1972<sup>11</sup> (EECC).

## II. OIR Scope Limitation to the Provision of Internet Access Services to End-users

### 1. Internet Access Services and End-users within the Meaning of the OIR

According to Article 1(1) OIR, the scope of the Regulation only extends to data traffic in the context of the provision of Internet access services and the associated rights of end-users:<sup>12</sup>

This Regulation establishes common rules to safeguard equal and non-discriminatory treatment of traffic in the provision of Internet access services and related end-users’ rights.

An Internet access service is defined as:

...a publicly available electronic communications service that provides access to the Internet, and thereby connectivity to virtually all end points of the Internet, irrespective of the network technology and terminal equipment used (Article 2 no. 2 OIR).

The scope limitation of the regulatory obligations of the OIR to the provision of Internet access services is confirmed in the specific net neutrality provisions of Article 3 OIR. The access-related net neutrality pro-

6 BEREC Report, An assessment of IP interconnection in the context of Net Neutrality, BoR (12) 130, p 20.

7 *idem*, p 21.

8 Karl-Heinz Neumann and others, “Wettbewerbsverhältnisse auf den Transit- und Peeringmärkten” (2022) WIK report on behalf of the Bundesnetzagentur, p 77ff <[https://www.wik.org/fileadmin/user\\_upload/Unternehmen/Veroeffentlichungen/Studien/2022/Studie\\_Wettbewerbsverhaeltnisse\\_auf\\_den\\_Transit\\_und\\_Peeringmaerkten.pdf](https://www.wik.org/fileadmin/user_upload/Unternehmen/Veroeffentlichungen/Studien/2022/Studie_Wettbewerbsverhaeltnisse_auf_den_Transit_und_Peeringmaerkten.pdf)> – accessed 29 January 2025.

9 For an overview, see <<https://www.ibanet.org/fair-share-what-stage-is-the-European-proposal-on-the-Internet-tax-at>> – accessed 29 January 2025.

10 Cf. the judgement of the Court of First Instance: Regional Court of Cologne, Judgement of 14 May 2024 – 33 O 178/23, BeckRS 2024, 12078.

11 Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code (OJ L 321, 17.12.2018, 36-214).

12 See also Recital 1 OIR.

vision of Article 3 (1) OIR explicitly only regulates granting access to end-users “via their Internet access service”. Within this framework, namely “when providing Internet access services”, ISPs must treat all traffic equally in accordance with Article 3(3) OIR. The only exception to this explicit scope limitation to the provision of Internet access services is the provision of specialised services, ie services that are not Internet access services (Article 3(5)(1) OIR) but are provided on a physically identical infrastructure. Outside the provision of specialised services, the direct link between data transmission and the provision of Internet access services is the fundamental prerequisite for the applicability of the OIR.

According to the provisions of the Regulation and its recitals,<sup>13</sup> the OIR aims to protect end-users. The definition of “end-user” within the meaning of the OIR can be deduced from the provisions of the EECC. Although it is subordinate to the OIR in terms of its specific regulatory provisions (Article 1(3)(d) EECC), the EECC contains generally applicable provisions regarding the definition of terms specific to EU telecommunications law that apply in accordance with Article 2 OIR.<sup>14</sup> Pursuant to Article 2 no. 14 EECC, the term “end-user” refers to those users “not providing public electronic communications networks or publicly available electronic communications services”. Article 2 no. 13 EECC defines a user as a “natural or legal person using or requesting a publicly available electronic communications service”. In contrast to the distinction between “end-users” and “providers of content, applications and services” in Recital 3 OIR, end-users within the meaning of the OIR are both consumers and businesses,

such as CAPs, provided that they are connected to the Internet via an ISP’s Internet access service.<sup>15</sup>

Therefore, the OIR focuses on regulating Eyeball-ISPs, ie, those operating access and aggregation networks in particular. However, ISPs are also bound by the Regulation when operating at backbone network level if they provide Internet access services to end-users. Thereby, they have uninterrupted functional control over the data transmission across network layers.<sup>16</sup> In this case, all network layers serve the provision of Internet access services and are subject to the service-related – not network layer-related – provisions of the OIR.<sup>17</sup> However, (pure) transit services, which guarantee complete upstream and downstream connectivity and serve, among other things, to transmit data to a target network via intermediate networks, are not within the scope of the OIR due to the lack of a direct end-user relationship.

## 2. IP Interconnection not Covered by the Wording and Objective of the OIR

It is the prevailing opinion in the literature that agreements on IP interconnection (via peering or transit) and the IP data transport services provided on this basis are excluded from the regulatory scope of the OIR.<sup>18</sup>

Internet access services within the meaning of the definition in Article 2 no. 2 OIR are not provided on the basis of an IP interconnection agreement.<sup>19</sup> Rather, the latter is a commercially negotiated data exchange concerning exclusive property rights based on a physical connection between two networks.<sup>20</sup>

13 Cf. Recital 1 OIR: “The Regulation [...] aims to protect end-users [...]”.

14 Art 2 sentence 1 OIR refers to the definitions of Directive 2002/21/EC. Since 21 December 2018, this has to be read as a reference to the definitions of the EECC (art 125 EECC).

15 Joined Cases C-807/18 and C-39-19 *Telenor Magyarország* [2020] ECLI:EU:C:2020:154 para 37; cf. BEREC Guidelines, para 4.

16 Johannes Osing, *Die Netzneutralität im Binnenmarkt* (Nomos 2017) p 86.

17 Anton Veidt, *Grund und Grenzen einer verursachungsgerechten Regulierung der Breitbandnutzung* (Nomos 2024) p 85.

18 Thomas Fetzter, Joachim Scherer and Kurt Graulich, *TKG* (3rd edn, Erich Schmidt Verlag 2021) OIR para 166, 208; Christoph Mertens, “IP-interconnection, charging mechanisms and net neutrality: a perspective from BEREC” (April 2021) BEREC Seoul webinar presentation; Johannes Osing, *Die Netzneutralität im Binnenmarkt* (Nomos 2017) p 80, 85; Klaus-Dieter Scheurle and

Thomas Mayen, *TKG* (3rd edn, CH Beck 2018) OIR para 86; Anton Veidt, *Grund und Grenzen einer verursachungsgerechten Regulierung der Breitbandnutzung* (Nomos 2024) p 85; see also Bundesnetzagentur, annual report on net neutrality in Germany 2021/22, para 22 <[https://www.bundesnetzagentur.de/SharedDocs/Downloads/DE/Sachgebiete/Telekommunikation/Unternehmen\\_Institutionen/Netzneutralitaet/Netzneutralitaet\\_Jahresbericht%202021\\_2022.pdf?\\_\\_blob=publicationFile&v=1](https://www.bundesnetzagentur.de/SharedDocs/Downloads/DE/Sachgebiete/Telekommunikation/Unternehmen_Institutionen/Netzneutralitaet/Netzneutralitaet_Jahresbericht%202021_2022.pdf?__blob=publicationFile&v=1)> – accessed 29 January 2025.

19 Andreas Leupold, Andreas Wiebe and Silke Glossner, *IT-Recht* (4th edn, CH Beck 2021) part 8.4 para 8.

20 The term “interconnection” is defined in art 2 no. 28 EECC as “a specific type of access implemented between public network operators by means of the physical and logical linking of public electronic communications networks used by the same or a different undertaking in order to allow the users of one undertaking to communicate with users of the same or another undertaking, or to access services provided by another undertaking where such services are provided by the parties involved or other parties who have access to the network”.

Admittedly, this data exchange at IP interconnection level also serves a public purpose: enabling communication between virtually all end points of the Internet, thereby facilitating end-user rights. However, the data to be exchanged or transported to other networks is solely determined by the interconnection partners. IP interconnection services are, therefore, neither publicly available for end-users in the context of the OIR nor provide access to virtually all end points of the Internet.

Against this background, CAPs that contract with ISPs at interconnection level are also not end-users within the meaning of the OIR.<sup>21</sup> According to the OIR's end-user concept, the end-users' status is always linked to the use of an Internet access service. CAPs are connected to the Internet in various ways and also sometimes use Internet access services. Only in this respect are CAPs end-users within the meaning of the OIR. However, IP data transport services provided at interconnection level do not constitute an Internet access service within the meaning of Article 2 no. 1 OIR. With regard to interconnection agreements, CAPs are, in functional terms, not end-users protected under Article 3 OIR.

Agreements at interconnection level and IP data transport services provided on this basis as a prerequisite for online business models of CAPs are also not a part of the Internet access services provided to end-users by the ISP. The objective of regulating Internet access services by the OIR is, first and foremost, to strengthen competition between different content, applications or services and their providers for network capacity; thus, to entrust competition to the autonomy of choice by end-users. Only end-users should be able to choose between competing content, applications and services based on their individual preferences. This freedom of choice applies as long as it is not restricted by objectively necessary measures to enhance transmission quality (Article 3(3)(2) OIR) or to maintain the functionality of the network (Article 3(3)(3) OIR).

In accordance with the aim of the OIR, this freedom of choice for end-users regarding the use of certain content, applications, and services must not be undermined by commercially motivated tendencies of capacity allocation by ISPs. Therefore, the prerequisite for the applicability of the OIR is always the uninterrupted functional control of ISPs over the data transmission from the network end points to the respective end-user, based on which ISPs can influ-

ence the allocation of network capacity and other transmission modalities. It is precisely this functional control of the ISP and the associated abstract risk of abuse of this power that served as a justification for the net neutrality provisions of the OIR. At interconnection level, ISPs lack this functional control over data transmission, as all business relations of the ISPs are based on individual interconnection agreements with other ISPs and CAPs. The sender (ie the CAP) is responsible for deciding on which routes – ie via which providers or interconnection points – it transmits its data traffic to the target network.

The asymmetrical development from a user-centred Internet with the exchange of symmetrical data streams between network operators to a large CAPs-centred distribution network for their commercial content and applications (with around 70% of global Internet traffic) also questions the legislator's approach to the OIR. Although the EU legislator originally decided to make ISPs the addressees of unilateral net neutrality obligations to safeguard the open Internet, due to the asymmetrical development of the Internet, large CAPs have even greater capabilities to abuse their market power to the detriment of both ISPs and end-users. These developments in the relevant markets serve as a strong argument against extending the scope of the OIR to the interconnection practices of ISPs beyond the wording of the Regulation.

In its Guidelines, BEREC emphasises that interconnection services do not constitute Internet access services within the meaning of the OIR and that CAPs do not act as end-users in the context of interconnection agreements:

CAPs are protected as end-users under the Regulation in so far as CAPs use an IAS [Internet access service] to reach other end-users. However, some CAPs may also operate their own networks and, as part of that, have interconnection agreements with ISPs; the provision of interconnection is a distinct service from the provision of IAS.<sup>22</sup>

Thus, BEREC appears to clearly recognise the scope limitation pursuant to Article 1(1) OIR. In its Report

<sup>21</sup> Franz Jürgen Säcker and Torsten Körber, *TKG/TTDSG* (4th edition, Fachmedien Recht und Wirtschaft 2023), art 1 OIR, para 4.

<sup>22</sup> BEREC Guidelines, para 5.

on the IP Interconnection Ecosystem (BoR (24) 177), BEREC confirms that “the OIR focuses solely on the provision of IAS [Internet access services] to end-users”.<sup>23</sup>

Article 3(2) OIR also does not extend the scope of the Regulation to interconnection practices of ISPs. According to the clear wording, the provision only applies to agreements between ISPs and end-users on Internet access; therefore, not to agreements between ISPs and CAPs at interconnection level. Furthermore, it cannot be concluded from Article 3(2) OIR and Recital 7 OIR that the OIR prohibits agreements between ISPs and CAPs on the compensation for IP data transport services at interconnection level in the sense of a zero-price rule.<sup>24</sup> On the contrary, conduct that has not been expressly declared unlawful is still permitted within the framework of general contractual freedom. The terms “commercial practice” in Article 3(2) OIR and “commercial practices” in Recital 7 OIR also refer directly to end-users and, in contrast to the term “agreement”, include unilateral measures by ISPs in the context of the provision of Internet access services. According to the Court of Justice (CJ), commercial practices may include:

...the conduct of a provider of Internet access services which consists in offering specific variants or combinations of those services to its potential customers, in order to meet the expectations and preferences of each customer, and, if necessary, conclude an individual agreement with them. This may mean that a greater or lesser number of agreements of the same or similar content are put in place, depending on those expectations and preferences.<sup>25</sup>

23 BEREC Report on the IP Interconnection Ecosystem, BoR (24) 177, p 38.

24 Lorenz W. Jarass, *Privilegierungen im Internet* (Nomos 2019) p 333; Anton Veidt, *Grund und Grenzen einer verursachungsgerechten Regulierung der Breitbandnutzung* (Nomos 2024) p 117.

25 Joined Cases C-807/18 and C-39-19 *Telenor Magyarorszag* [2020] ECLI:EU:C:2020:154 para 35.

26 BEREC Guidelines, para 6; see also BEREC Report on the IP Interconnection Ecosystem, BoR (24) 177, p 38; BEREC Opinion for the Evaluation of the application of the Open Internet Regulation, BoR (22) 163, p 6; BEREC Report on the outcome of the public consultation on the draft BEREC Guidelines on the Implementation of the Open Internet Regulation, BoR (22) 80, p 14.

27 See Recitals 1 and 3 OIR.

### 3. Interim Result

According to the clear wording of the Regulation, the practices of ISPs at interconnection level are outside the scope of the OIR. In their role as (potential) interconnection partners of ISPs, CAPs are also not end-users within the meaning of the OIR. The scope limitation to the provision of Internet access services and the associated exclusion of interconnection practices by the OIR corresponds to the aim of the Regulation to (only) impose obligations to maintain net neutrality within the framework of the uninterrupted functional control of ISPs over data transmission. Beyond this functional control (at interconnection level), net neutrality provisions are not intended to apply.

## III. Indirect Effects on End-users do not Lead to Applicability of the OIR

### 1. BEREC Approach: Applicability of Article 3(1) OIR

According to its Guidelines, BEREC nevertheless recommends that NRAs take into account interconnection practices of ISPs in so far as they have the effect of limiting the exercise of end-user rights under Article 3(1) OIR, for example, if the interconnection is implemented in a way which seeks to circumvent the Regulation:

NRAs may take into account the interconnection policies and practices of ISPs in so far as they have the effect of limiting the exercise of end-user rights under Article 3(1). For example, this may be relevant in some cases, such as if the interconnection is implemented in a way which seeks to circumvent the Regulation.<sup>26</sup>

According to Article 3(1) OIR, end-users have the right to access and distribute data via the Internet at their discretion and to use and provide applications and services. Access must be granted irrespective of the end-user's and provider's location or the “location, origin or destination of the information, content, applications or services”.

BEREC justifies taking the interconnection practices of ISPs into account, first of all, by pointing out that the primary objective of the OIR is to guarantee an open Internet.<sup>27</sup> The effectiveness of this objec-

tive and, thereby, of the OIR would be compromised if NRAs were not allowed to take the interconnection level into account.<sup>28</sup> However, it cannot be concluded from this general objective of the OIR that the interconnection practices of ISPs should be taken into account by NRAs. Rather, it is merely a high-level declaratory statement in the first recitals without a point of reference in the actual provisions of the OIR and, in particular, is not legally defined. The fact that Recital 3 OIR identifies traffic management practices of ISPs, rather than their interconnection practices, as a threat to the open Internet underpins the scope limitation to the provision of Internet access services. This challenges BEREC's approach of extending the scope of the OIR based on this vague wording in the recitals, which contradicts the explicit wording of Article 1(1) and Article 3 OIR.

In addition, BEREC argues that the OIR repeatedly calls upon NRAs to be wary of attempts to circumvent the provisions of this Regulation to protect open Internet access.<sup>29</sup> This reference to the prohibitions on circumvention formulated in the recitals of the OIR also does not support an extension of the scope of the Regulation to potential practices of ISPs at interconnection level. The circumvention prohibitions affirmed in Recitals 7, 15, and 16 OIR have no direct link to IP interconnection practices. They are merely an expression of the general EU law principle of *effet utile*, which also does not require consideration of the interconnection practices of ISPs by NRAs (see below).

BEREC also points out that the OIR calls on ISPs not to restrict connectivity to all accessible end points of the Internet.<sup>30</sup> This is stated in Recital 4 OIR:

An Internet access service provides access to the Internet, and in principle to all the end-points thereof, irrespective of the network technology and terminal equipment used by end-users. However, for reasons outside the control of Internet access services, certain end points of the Internet may not always be accessible. Therefore, such providers should be deemed to have complied with their obligations related to the provision of an Internet access service within the meaning of this Regulation when that service provides connectivity to virtually all end points of the Internet. Providers of Internet access services should therefore not restrict connectivity to any accessible end-points of the Internet.

ISPs' interconnection practices, such as "selective routing strategies" and "artificially manufacturing scarcity", could be based on the same incentives and lead to identical results as unequal treatment of data packets within their networks. BEREC argues that NRAs should have the power to address such practices to ensure the practical effect of the OIR.<sup>31</sup>

## 2. IP Interconnection is only Subject to General Telecommunications Law and Competition Law

Admittedly, certain practices of ISPs at interconnection level, in particular, if an ISP were to restrict the connection of the Internet access service to certain end points of the Internet – expressly prohibited by Recital 4 OIR – could affect the scope of Internet access protected by Article 3(1) OIR. However, BEREC fails to recognise that safeguarding end-user rights under Article 3(1) OIR is only mandatory within the scope of the Regulation defined by Article 1(1) OIR, ie solely for the provision of Internet access services.

The explicit scope limitation and the absence of references to IP interconnection in the OIR reflect the clear aim of the EU legislator to leave the interconnection level to the general autonomy of ISPs and CAPs. This autonomy is only restricted by the provisions of general competition law and regulatory requirements for the telecommunications sector under the EECC. Against this background, non-intervention by the OIR in the interconnection practices of ISPs does not jeopardise its *effet utile*. According to the EU legislator's intention reflected in the explicit scope limitation in Article 1(1) OIR, the market intervention powers under general competition law (ex post) or telecommunications regulation (ex post and ex ante) are sufficient to prevent or remedy impairments of access-related net neutrality pursuant to Article 3(1) OIR.

Article 6o EECC requires operators of public electronic communications networks to negotiate interconnection. In addition, according to Article 61(2)

28 BEREC Report on the IP Interconnection Ecosystem, BoR (24) 177, p 38.

29 *idem*.

30 *idem et seq.*

31 *idem*, p 39.

EECC, NRAs should be able to impose, to the extent necessary, to ensure end-to-end connectivity, obligations on undertakings subject to general authorisation that control access to end-users, including, in justified cases, the obligation to interconnect their networks where this is not already the case. This applies where necessary to ensure end-to-end connectivity and the provision of services and their interoperability.

These dedicated obligations and regulatory powers with regard to interconnections between network operators adequately safeguard end-users' access to the CAPs' content, applications and services at interconnection level. The regulatory mechanism is based on the economic principle that wholesale regulation of the upstream level should generally be sufficient to transfer the intended welfare effects to the downstream end-user markets. With regard to the scope limitation to the provision of Internet access services, the OIR also follows this principle.

In this respect, the isolated consideration of a legal act such as the OIR is insufficient to judge its *effet utile* if it is embedded in a wider regulatory system of various primary and secondary law provisions. These different provisions complement each other in their scope and specific regulations, collectively ensuring the realisation of regulatory objectives (in particular, end-user protection). According to the EU legislator's view, the provision of Internet access services poses an abstract threat to end-users' rights because of the functional control of ISPs over data transmission. In this context, net neutrality obligations under Article 3 OIR – applicable without market intervention by NRAs – are considered justified from a regulatory perspective. Outside of this limited regulatory scope of the OIR, however, the general competition and regulatory provisions apply and lay down general rules for market interventions at interconnection level by competent national authorities. The NRAs are not allowed to undermine these general competition and regulatory law standards by imposing regulatory obligations based on Article 3(1) OIR.

The legislative history underlines that interconnection practices are not supposed to be covered by

the OIR. The original Commission draft was based on the findings of the BEREC report "An assessment of IP interconnection in the context of Net Neutrality", according to which ISP practices at interconnection level did not pose a threat to net neutrality:

The best-effort principle is reflected in today's interconnection agreements across IP-networks taking the form of transit and peering agreements generally causing no disruptions of net neutrality in IP interconnection.

Nowadays, QoS differentiation potentially leading to deviations from net neutrality typically occurs only within the ISP's network providing connectivity to the user and therefore is not reflected in interconnection agreements across networks at the network layer.

[...]

Potential violations of net neutrality such as blocking and throttling of traffic typically occur in the Eyeball ISP's network and therefore are not reflected in IP interconnection.<sup>32</sup>

BEREC also pointed out the possibility of imposing obligations on companies acting on the interconnection market. However, particularly because of the competitive pressure on the Internet access markets, BEREC assumed that interconnection markets were developing well and did not require any significant regulatory intervention:

The current Regulatory Framework foresees that NRAs can impose an obligation to interconnect on a non-discriminatory basis (Article 5 AD).

[...]

The market has developed very well so far without any significant regulatory intervention.

[...]

Disruptions in IP-interconnection due to disputes between ISPs potentially lead to a situation where not all destination of the Internet may be reached. However, such instances have been few and have to date been solved in a relatively short time without regulatory intervention - also due to the competitive pressure of end-users at the retail level.

[...]

Any measure could potentially be harmful, so it should be carefully considered.<sup>33</sup>

Against this backdrop, the regulation of IP interconnection markets played virtually no role in the entire legislative process. Even BEREC's reporting obliga-

<sup>32</sup> BEREC Report, An Assessment of IP Interconnection in the Context of Net Neutrality, 6 December 2012, BoR (12) 130, p 59.

<sup>33</sup> *idem*, p 61.

tion on the development of interconnection markets (Article 19(1)(f) of the Commission's proposal) did not make it into the final draft of the OIR.

#### IV. No Extension of the Scope of the OIR by BEREC or NRAs

The explicit scope limitation to the provision of Internet access services to end-users under Article 1(1) OIR prohibits any extensions of this regulatory scope by BEREC or the NRAs.

NRAs, which cooperate through BEREC at EU level, are tasked with interpreting the vague legal terms of the OIR and applying them in light of the specific national market conditions. While applying EU law directly, NRAs are functional Union authorities and, therefore, in this capacity, subject to the principle of conferral and thus to the limits of application of the Regulation under secondary law. According to the principle of conferral, the EU shall act only within the limits of the competences conferred upon it by the Member States in the Treaties to attain the objectives set out therein (Article 5(2) TEU). Each institution, including functional Union authorities, shall act within the limits of the powers conferred on it by the Treaties and in conformity with the procedures, conditions and objectives set out therein (Article 13(2) TEU). Likewise, this principle is an essential factor for the conformity of the application of secondary with primary EU law. It prevents NRAs, in their capacity as functional Union authorities, from extending their competences to apply secondary law derived from primary law (regarding the OIR: from Article 114(1) TFEU) beyond expressly delegated competences. In particular, NRAs may not create new competences under the OIR.

Against this background, the conditions for market interventions by NRAs are conclusively defined in the individual provisions of the OIR. In its recitals, the EU legislator has also laid down specific interpretation guidelines on the vague requirements with regard to agreements between ISPs and end-users under Article 3(2) OIR and the establishment of specialised services under Article 3(5) OIR (Recitals 7, 16 and 17 OIR). As a result, the NRA's competences are at least subject to a certain degree of interpretational control. The remarks in the recitals show that the legislator has recognised the need to specify the NRA's competences in view of the vaguely formulat-

ed regulatory requirements. An extension of the competences of the NRAs contrary to the wording of Article 1(1) OIR without corresponding specification of the requirements and legal consequences of market intervention by NRAs in the text of the Regulation would contradict this clear intention of the legislator.

BEREC is also not authorised to extend the regulatory scope of the OIR beyond the legal wording in its Guidelines. Rather, the BEREC Guidelines serve exclusively as a non-binding recommendation for NRAs and regulated undertakings to ensure consistent application of the OIR within the EU. In the literature, the extension of the regulatory scope of the OIR to the interconnection level within the framework of the BEREC Guidelines is sharply criticised because it goes beyond the wording of the OIR and would establish an additional task beyond the delegated competences of NRAs instead of merely concretising or interpreting them.<sup>34</sup>

#### V. IP Interconnection under Scrutiny of EU Competition Law

The fact that the OIR does not cover IP interconnection does not mean that relevant practices occur in a legal vacuum. Assuming a network monopoly of each ISP regarding the transport and delivery of IP data packets to its retail broadband customers and leaving aside substitutability through indirect IP traffic routing, Article 102 TFEU would apply if ISP practices amount to an abuse of a dominant position in particular by directly or indirectly imposing unfair purchase or selling prices or other unfair trading conditions (Article 102 sentence 2(a) TFEU). Enforcement within the framework of Article 102 sentence 2(a) TFEU means the unilateral imposition of unreasonable prices or other terms and conditions on the contractual partner (eg other ISPs or CAPs). The economic superiority of the dominant undertaking causes coercion. Prices are considered unfair if they are disproportionate to the economic value of the services. Determining the discrepancy that results in the unfairness within the meaning of Article 102 sentence 2(a) TFEU proves to be extremely complex in

<sup>34</sup> See eg Thomas Fetzer, Joachim Scherer and Kurt Graulich, *TKG* (3rd edn, Erich Schmidt Verlag 2021), OIR para 166.

most cases. The CJ has applied various methods to determine this discrepancy, particularly profit limitation<sup>35</sup> and comparative market concepts.<sup>36</sup>

However, with a view to the development of the Internet over time, exploitative strategies by ISPs in Europe have not materialised in practice. Largely symmetric IP traffic continues to be exchanged between network operators on a settlement-free basis, while asymmetric IP traffic, notably from large CAPs or commercial CDNs, is charged a modest amount when compared to the value of the underlying IP data transport service as a fundamental prerequisite for the respective online business model. Due to the development of the Internet from a user-centred network with the exchange of symmetrical data streams between network operators to a large CAPs-centred distribution network for their commercial content and applications, it is now large CAPs that wield superior bargaining power in the market for IP data transport services because of their powerful position in the markets for their respective online services (eg social network, messaging or video on demand services). The recent judgement of the Regional Court of Cologne<sup>37</sup> suggests that notably large CAPs may impose unfair trading terms on ISPs by feeding asymmetric IP traffic into their network without paying a fair and reasonable price for the IP data transport service.

The imposition of unfair trading terms can be directly linked to the CAP's dominant market position in certain service markets and their ubiquitous use by the end-users of the ISP's Internet access service, as a result of which the ISPs are forced to transport

the CAP's data to these users even in the absence of compensation. If end-users cannot use these services smoothly, they generally blame their ISP and switch to another provider in highly competitive broadband markets. The willingness to switch providers corresponds to the fact that the various provisions of Article 105 EEC maximum contract term of 24 months, monthly ability to cancel after automatic contract renewal, and ability to cancel in the event of notification of disadvantageous contract amendments) ensure that end-users can switch their ISP in practice. This places integrated ISPs (ISPs operating at backbone and eyeball level) under tremendous pressure as they must do whatever it takes to ensure that the CAP's data is delivered to their end-users without any such data being lost or their transmission slowed down due to congestion.

Moreover, under specific circumstances, these practices could be categorised as margin squeezes on the relevant global market for net-based transmission services for IP data traffic.<sup>38</sup> In the classical sense, a margin squeeze within the meaning of Article 102 TFEU is a strategy by which a vertically integrated market dominant undertaking reduces or eliminates the potential profit margins of its competitors in the downstream market in such a way that they are no longer competitive and ultimately have to exit the market, thereby impairing competition in the downstream market as a whole. If large CAPs impose unfair zero-price terms on ISPs while also transporting data from third-party providers via their proprietary CDNs, smaller transit carriers and commercial CDN providers could be forced out of the market in the long run because they will not be able to match the prices large CAPs can offer to their customers for IP data transport services. This practice and the resulting effects are similar to classic margin squeeze strategies and should, therefore, be treated accordingly by competition authorities within the framework of Article 102 TFEU. Under the conditions recognised by the CJ<sup>39</sup> and, in particular, to the extent that large CAPs, such as Google or Meta, carry third-party traffic (against payment) in the relevant global market for IP data transport, crowding-out effects caused by margin squeezes can occur to the detriment of other small transmission competitors.

With their proprietary global backbone networks and expansion of local CDNs, large CAPs now control a significant part of traffic flows and access to

35 See eg Case C-27/76 *United Brands/Commission* [1978] ECLI:EU:C:1978:22 paras 248/257.

36 See eg Case C-226/84 *British Leyland/Commission* [1986] ECLI:EU:C:1986:421.

37 Regional Court of Cologne, Judgement of 14 May 2024 – 33 O 178/23, BeckRS 2024, 12078.

38 In the past, the Commission has analysed Internet-based transmission services for IP data traffic in an overall market for Internet connectivity. It considered a further sub-segmentation into transit and peering services but ultimately left this open (Cf. Commission decision of 14/04/2014, Case No. COMP/M.7109 – DEUTSCHE TELEKOM/GTS, paras 19 et seq.). The wholesale market for IP data transport services is global according to the Commission's decision-making practice (Cf. Commission decision of 14/04/2014, Case No. COMP/M.7109 – DEUTSCHE TELEKOM/GTS, paras 23 et seq.; Commission decision of 07/10/2005, Case No. M.3752 – Verizon/MCI, para 24). Both demand and supply sides are generally acting on a global scale.

39 See eg Case C-280/08 P *Deutsche Telekom AG/Commission* [2010] ECLI:EU:C:2010:603; Case C-52/09 *TeliaSonera Sverige* [2011] ECLI:EU:C:2011:83.

relevant online content. The once atomistic structure that characterised the traditional Internet architecture belongs to the past, and large CAPs use their ability to impose settlement-free peering and favourable caching conditions on local ISPs in combination with deep pockets to squeeze out remaining commercial CDNs. Large CAPs with immense leverage powers, such as Meta, Google, or Amazon, have the ability and incentive to engage in self-preferencing and foreclosure strategies to the disadvantage of smaller CAPs and even to the detriment of ISPs, who must fear disconnects in the service quality obtained by their end-users if they do not give in to the pressure exerted by large CAPs to accept a zero-price for IP interconnection. Consequently, there is a much higher risk that large CAPs operating on a global basis infringe upon the rationale of the open Internet rather than local European ISPs. Due to the crux that these large CAPs are not bound by the OIR, Article 102 TFEU serves as a safety net for potential abuses of dominant market power.

## VI. Conclusions

The objective and purpose of the OIR's regulation of Internet access services is, first and foremost, to strengthen competition between different content, applications or services and their providers for net-

work capacity, thus, to entrust competition to the autonomy of choice by end-users.

An extension of the regulatory scope of the OIR to the regulation of IP interconnection, as advocated by BEREC in its Guidelines, is contradictory to the wording, object and purpose of the OIR. Given the scope limitation to the provision of Internet access services, it was the clear intention of the EU legislator to leave interconnection practices to the scrutiny of general telecommunications regulation and competition law. The general requirements for market intervention under competition and telecommunications law must not be undermined by measures of NRAs based on Article 3(1) OIR. Instead, such measures would exceed the competences of NRAs within the framework of the OIR.

A holistic analysis of bargaining power appears necessary to apply EU competition law to commercial relationships between large CAPs and ISPs. Recent developments suggest that large CAPs can now abuse their bargaining power in the market for IP data transport services due to their dominant positions in the markets for their ubiquitous services, which also strengthen their leverage powers in other upstream and downstream markets. In particular, to the extent that large CAPs carry third-party traffic (against payment), crowding-out effects caused by margin squeezes can occur to the detriment of other small providers of transit or CDN services.