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# The Impact of EU Regulatory Frameworks on OTT Connectivity Providers

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## EXECUTIVE SUMMARY

Since their inception, Over the Top (“OTT”) connectivity providers have enjoyed favourable regulatory environment and a forbearing approach from the national regulatory authorities. However, due to the rapid growth of OTT services and their significant impact upon traditional communication providers, this approach has started to change. As suggested in this paper, OTT connectivity providers – particularly if E.164 numbers are used – are very likely to be classified as electronic communication services, and consequently may need to comply with the requirements applicable to traditional electronic communication providers.

The purpose of this paper is to highlight the main risks facing OTT providers in relation to the provision of services in EU Member States and offer solutions to these issues. This paper will demonstrate that a new regulatory approach may not only directly affect OTT connectivity providers but is also likely to have an impact upon traditional electronic communication service providers as more focus will be placed on how they cooperate with OTT providers and permit the use of their numbers.

Furthermore, comparisons will be drawn between OTTs and traditional electronic communication services. This paper will evaluate recent regulatory developments to support arguments as to whether OTTs should be classified as electronic communication services. It will then highlight the main communication requirements – applicable to OTT connectivity providers that allocate numbering resources for the provision of their services – and provide examples of different approaches to similar regulatory issues, adopted by EU member states. Finally, the report will examine security and data protection obligations in relation to electronic communication requirements to which OTT connectivity providers are likely to be subject.

Please note that this paper analyses classification and obligations of ECS under the EU regulatory framework which was enacted in 2002 and later amended in 2009. The current regulatory framework shall be replaced by Directive 2018/1972 establishing European Electronic Communications Code<sup>1</sup> by 21 December 2020. The directive will significantly change the existing regulatory framework and its effect will be assessed in another paper.

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<sup>1</sup> [Directive 2018/1972](#) of 11 December 2018 establishing European Electronic Communications Code.

## INTRODUCTION

OTT service providers offer a disruptive and rapidly developing technology, which has experienced significant economic growth in the last decade. OTT providers have successfully competed with “traditional” electronic communication providers by offering similar communication services to end users, either free of charge or at more affordable rates than traditional providers. This success can be attributed largely to the state-of-the-art technology business model and favourable regulatory framework. However, recently the regulatory approach has started to change, and national regulatory authorities have started regulating OTT connectivity providers, requesting compliance with the telecommunication requirements.

This raises questions of what services will fall under the definition of OTT, how are they related to traditional electronic communication providers, and to what extent should they comply with the telecommunication requirements? The aim of this paper is to provide clarity on these issues by analysing the conditions under which OTT services could be considered electronic communication service (“ECS”), and the requirements which would be imposed on OTT providers from the existing telecommunication regulatory framework. This will be supported with reference to EU regulatory framework and examples of the implementation of this framework by EU member states into national legislation.

Furthermore, this paper aims to highlight the main risks which OTT providers are likely to encounter if they are considered to be ECS providers – including if numbering resources are used for the provision of services – as well as to offer recommendations on how to mitigate regulatory risks, and use regulatory frameworks to their advantage.

# DIFFERENCES AND SIMILARITIES BETWEEN OTT AND ECS

## Classification of OTTs by BEREC

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Discussions on whether and to what extent OTT providers should be defined as ECS have been ongoing for several years. In 2016, the Body of European Regulators for Electronic Communications (“BEREC”)<sup>2</sup> published a report on the classification of OTT services based on applicable EU regulatory framework together with the European Court of Justice (ECJ) case law and respective framework of EU member states. In its report BEREC suggested the following definition of OTT services as “content, a service or an application that is provided to the end user over the public Internet.”<sup>3</sup> According to this definition, end users can use OTT services anywhere as long as there is an internet connection, the identity of the internet provider is irrelevant.

BEREC made a distinction between three types of OTT services:

1. OTT-0 services, which qualify as ECS, where connectivity is provided via Publicly Available Telephone Services (PATS). One such example of this distinction is the SkypeOut application;
2. OTT-1 services like voice or instant messaging, which compete with ECS but do not fall within the definition. One such example of this distinction would be Gmail application.
3. OTT-2 services such as video or music streaming, which do not qualify as ECS, nor compete with them. One such example of this distinction would be Netflix.

The main purpose of BEREC’s report was to determine the type of services that may fall under the scope of ECS. The current EU regulatory framework – adopted in 2002 and amended in 2009 – provides a criterion for the assessment of what services shall qualify as ECS:

*“Electronic communications service’ means a service normally provided for 1) remuneration which consists 2) wholly or mainly in the conveyance of signals on electronic communications networks, including telecommunications services and transmission services in networks used for broadcasting, 3) but exclude services providing, or exercising editorial control over, content transmitted using electronic communications networks and services...”*

The first two elements of the criteria are crucial in determining whether the service qualifies as an ECS:

1. The service should be provided for remuneration, which includes consideration received from end user/recipient of services, but also any benefit from the activity, which would include advertisement on a website or provision of personal data for consideration. Therefore, most OTT providers would cross this threshold.
2. The second requirement that a service *consist wholly or mainly in the conveyance of signals* is a more complicated issue. The report emphasized three aspects to be considered, and has offered possible interpretations:
  - a. whether signals are conveyed between network termination points;

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<sup>2</sup> For more information about Body of European Regulators for Electronic Communications (BEREC) please see the [website](#).

<sup>3</sup> [Report on OTT services BoR 16\(35\), January 2016](#).

- b. whether a provider is *responsible* for conveyance of signal in relation to its customers when it purchases services consisting of conveyance of signals from a telecommunication provider, and then sells them – often alongside with other services – to its own customers;
- c. The use of the term *mainly* is the most controversial as the report suggests that services which do not consist wholly in conveyance of signal, should be assessed by the national regulatory authority against those that are not in conveyance. In this regard, it was suggested that many factors should be evaluated, including technical and functional considerations, as well as contractual obligations to end users. Thus, a broader interpretation will include more OTT services within the scope of an ECS, including some OTT-1 services.

Given the nature of OTT-2 services, it is more likely that these services will fall outside of the electronic communication framework since the second condition does not apply<sup>4</sup>. However, the first two groups – OTT-0 and OTT-1 - have been assessed by national regulatory authorities (NRA), as well as by national courts, in detail to determine whether these qualify as an ECS or not.

## National and ECJ Practices in Relation to OTT Services

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There have been a number of recent court cases which have influenced the provision of OTT services and provided more clarity on distinctions between ECS and non-ECS services. Namely in Belgium, the NRA ruled that SkypeOut – an application which facilitates calls to the public switched telephone network (PSTN) over the internet – constitutes an ECS. The NRA in Germany has gone even further and held that Gmail services provided by Google – a web-based email application which enables users to send and receive emails over the internet – constitutes an ECS service as well. In both cases providers were requested to register their services as ECS and both appealed to their national courts, who then referred the cases to the ECJ for a preliminary ruling.<sup>5 6</sup>

Upon review of SkyOut’s case, the ECJ ruled that based on the way calls could be initiated through the application over the PSTN, it would fall within the scope of an ECS if the following conditions are fulfilled<sup>7</sup>:

- a) Application provider is remunerated for such service;
- b) Service allows user to call numbers (fixed or mobile) covered by a national numbering plan via PSTN<sup>8</sup>;
- c) Application provider has an agreement with other ECS providers which are authorised to send and terminate calls to the PSTN.

Based on the provided evidence, the ECJ reaffirmed that the SkypeOut application fulfils all the above conditions, and as such shall be considered an electronic communication service.

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<sup>4</sup> Nevertheless, OTT-2 services are likely to be subject to Information Society Services requirements and other requirements like data protection.

<sup>5</sup> [Decision of the Brussels Court of Appeal No 2018/1182 of 07 February 2018](#), available in French.

<sup>6</sup> [Decision of Higher Administrative Court for the Land of North Rhine-Westphalia 26.02.2018 - 13 A 17/16](#), available in German.

<sup>7</sup> *Skype Communications Sàrl v Institut belge des services postaux et des télécommunications (IBPT)*, [Case C-142/18](#).

<sup>8</sup> It is irrelevant whether numbers have been assigned or not to end users by OTT or traditional provider, important is that numbers are used to connect via PSTN.

The judgement has left several questions unanswered. The first is whether an OTT application would need to use E.164 numbering resources to be considered an ECS? Secondly, whether concluding an agreement directly with other ECS providers is an absolute requirement which would otherwise exempt OTT providers from being classified as an ECS provider?

To an extent, these uncertainties have been addressed in the Gmail case,<sup>9</sup> where the ECJ based on the provided evidence ruled that the service “actively participates in sending and receiving of messages” but that this “does not appear to be sufficient to enable [this] service, on a technical level, to be regarded as consisting ‘wholly or mainly in the conveyance of signals on electronic communications networks.’” The ECJ concluded that it was for a national court to verify whether Google was responsible “vis-à-vis those holding an email account with Gmail for the conveyance of signals necessary for that account’s functioning”, unless it is determined that a web-based email service provides internet access itself, consisting wholly or mainly in the conveyancing of signal, it cannot be considered an ECS.

Based on the second judgement, the ECJ has not entirely ruled out that for OTT to be classified as ECS its service must only be limited to the use of national numbers with termination of calls via PSTN. The decisive factor in determining whether an OTT is an ECS by nature, is to consider the extent to which the OTT provider is involved in the conveyancing of signal vis-à-vis to end users. Thus, the crucial element is whether OTT providers have an arrangement with ECS providers, without which the conveyancing of signals would not be possible between end users. If the OTT provider is not involved with the conveyancing of the signal – typically this is likely to be the case with web-based email applications – the service is not likely to be deemed an ECS. On the other hand, in instances where the conveyancing of the signal would not be possible without an arrangement between the OTT and a third party(s) for signal termination, they are likely to be defined as an ECS provider, as was the case with SkypeOut.

In conclusion, although web-mail applications are more likely to not fall within the ECS scope, the situation is likely to be different if E.164 numbers are used for provision of VoIP calls via PSTN. In this scenario, an OTT provider would likely be classified as a provider of ECS and therefore, subject to telecommunication requirements and notification to the NRAs.

## **Notification as an ECS Provider<sup>10</sup>**

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Based on the EU regulatory framework, there are no licensing requirements for ECS in EU member states, but each ECS provider should notify the NRA of each member state where it will provide its services. Notification requirements vary significantly in each jurisdiction, however, generally an ECS provider must submit an application together with a list of necessary documents. According to the ECJ decisions<sup>11</sup> and EU Authorisation directive<sup>12</sup>, if an ECS provider is already established in one of the EU members states, it does not have to set up a foreign branch in each jurisdiction for the purposes of

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<sup>9</sup> [Google LLC v Bundesrepublik Deutschland, Case C-193/18.](#)

<sup>10</sup> Please note that electronic communication network operators (ECN) are subject to the same notification requirements, and other requirements, as applicable, from the electronic communication framework as discussed in this paper. However, as it is unlikely that OTT providers will be considered as ECN, this paper relates to ECS providers only.

<sup>11</sup> [UPC DTH Sàrl v Nemzeti Média, Case C-475/12](#)

<sup>12</sup> [Directive 2002/20/EC \(Authorisation Directive\).](#)

ECS notification. However, in practice several NRAs allow non-EU companies to be registered as ECS providers without requiring an establishment in the EU.

Nevertheless, some jurisdictions may require a local address/representation or a local tax registration for filing a notification. Submission of notification is generally not subject to regulatory fees; however, few jurisdictions require ECS providers to pay annual regulatory fees, the amount of which will often depend on annual revenues; as well as require timely reporting obligations in relation to the services provided.

Recent developments regarding the provision of VoIP calls indicate that more OTT providers utilise VoIP calls by either piggybacking on numbers assigned to their customers by other traditional communication providers or by assigning numbers directly to their customers for provision of VoIP calls using E.164 numbers. Therefore, OTT providers need to check whether and to what extent they are subject to ECS requirements in order to limit the regulatory burden, and if possible, even benefit from the regulatory framework.

The following section will review the regulatory requirements applicable in relation to assignment of E.164 numbers and provide recommendations; firstly, to ensure compliance, and secondly, where possible, to mitigate regulatory obligations.<sup>13</sup>

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<sup>13</sup> This paper considers several crucial issues which are directly applicable to providers using E.164 numbers for the provision of their services. However, in addition to the issues discussed, there are other regulatory matters which directly affect the utilisation of numbers; notably, ensuring billing accuracy and protection of consumers, and quality of the services provided.



# NUMBERING RESOURCES AND APPLICABLE REQUIREMENTS

## Obtaining Numbering Resources

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From a technology perspective, E.164 numbers can be distinguished between fixed, nomadic<sup>14</sup> and mobile numbers.<sup>15</sup> OTT providers should have the right to apply and use those numbers if they meet the regulatory eligibility requirements and fulfil regulatory obligations.<sup>16</sup> If the provision of OTT services – such as enabling VoIP calls – requires use of E.164 numbers (“numbers”), then the provider may obtain numbers either directly from NRA, or if national regulatory framework allows, under certain conditions, obtain numbers from another ECS provider to whom numbers have already been assigned by NRA. Under the current regulatory framework in EU member states, all parties involved must be registered as ECS providers to acquire numbers from the NRA or for the transfer of numbers to take place<sup>17</sup>, with a few exceptions.

Assignment of numbers directly from NRA is generally subject to authorisation and payment of regulatory fees. Successful assignment of numbers is subject to their availability, as with frequency spectrum, numbers are a scarce resource. Therefore, to ensure numbers are used efficiently, many jurisdictions allow transfer of blocks of numbers between ECS providers, on the condition that these numbers have not already been assigned to end users. In such cases, the process and conditions of transfer are strictly regulated and often subject either to approval from or notification to the relevant NRA. It should be noted that transfer does not imply trading of numbers which is generally prohibited.

The EU regulatory framework does not contain any harmonization provisions relating to the transfer of numbers. Consequently, NRAs have a wide discretion to decide on the process, conditions and obligations in transferring of numbering rights between providers. Certain jurisdictions like Portugal, Cyprus and Germany do not allow transfer of numbers between two separate ECS providers. In Germany for example even if another entity such as a reseller receives numbers, the original assignee remains responsible for the use of numbers.

However, if transfer of numbers is permitted, then there are two possible methods of transfer, depending on the jurisdiction. The first is when rights and obligations with numbers are transferred to the new ECS provider. In such a case the new provider replaces the previous one and becomes solely responsible for the use of numbers. In other jurisdictions, the “partial” transfer of numbers is possible, where either the original number assignee will remain responsible before the NRA, or the responsibility can be shared between two providers.

There are advantages and disadvantages to both options, and the final decision on which to choose will often depend on the extent to which the transferee would like to be independent from the number transferor. This is because when transferor remains responsible for numbers – as is the case

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<sup>14</sup> Please note that in many jurisdictions there is no definition of nomadic numbers, but instead it is possible that NRAs can adopt a notion of “nomadic use of geographic numbers” which allows the use of geographic numbers outside the respective area.

<sup>15</sup> [ECC Report 273](#) on E.164 Numbering and Over-The-Top (OTT) Communications Services, page 23.

<sup>16</sup> Same, page 23.

<sup>17</sup> For further information on assignment of numbers to non-ECS, please see recent BEREC Guidelines [BoR \(19\) 114](#), 14 June 2019, pages 4-5. BEREC guidelines on common criteria for the assessment of the ability to manage numbering resources by undertakings other than providers of electronic communications networks or services and of the risk of exhaustion of numbering resources if numbers are assigned to such undertakings

in Latvia for example – transferee might be subject to very strict contractual arrangements to ensure that numbers will be used in accordance with the regulatory framework.

Therefore, in order to avoid regulatory but also contractual issues between ECS providers regarding the transfer of numbers, it is advisable to verify what rights and obligations will be transferred along with them. Firstly, it must be determined whether the transfer is even possible and if so, whether new transferee assumes all the transferor’s rights and obligations, or if the transferor would still be liable for the use of numbers. Secondly, it is necessary to clarify the regulatory conditions in which the transfer will be taking place to ensure that all formalities have been fulfilled. For example, that the relevant NRA has been notified or permission was obtained, if required. Otherwise if the transfer of numbers did not take place, from a regulatory perspective, then this would mean that transferee – even if agreement with transferor has been signed - did not obtain the right to use numbers, and will likely face not only regulatory but also contractual consequences from its partners or customers.

It should be emphasised that the application of due diligence is crucial for both the transferee and transferor of numbers; if numbers are assigned or not used in accordance with the regulatory framework, ECS providers may not only face monetary penalties but also have their numbers revoked. In order to avoid such regulatory issues, some important factors must be considered.

## **Restrictions for the Use of Numbers**

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As numbers are a national scarce resource, NRAs have an obligation to regulate how numbers are assigned and utilized by end users to ensure their safety and guarantee protection of public order. The EU regulatory framework does not contain provisions on how numbers shall be utilized and confers wide discretion to member states.

As previously mentioned, numbers can from technical perspective be distinguished between fixed, nomadic and mobile numbers. Fixed numbers are geographically limited which allow determination of geographical location of subscriber, and fixed telephone numbers are generally limited to a certain area. Providers of VoIP calls through numbering resources must comply with the applicable geographical restrictions. However, to overcome geographic restrictions and provide VoIP services via numbers, certain jurisdictions like Ireland or Belgium allow providers to use either nomadic numbers<sup>18</sup> (which are not linked to a physical location) or have nomadic use of geographical numbers, under certain conditions.

Mobile numbers on the other hand are not limited to a specific location, however, such numbers are often assigned to subscribers living in a jurisdiction where numbers are being requested. Numbers are a representation of national sovereignty and the extraterritorial use of numbers – except the use of mobile numbers, which use is allowed based on roaming regulations<sup>19 20</sup> as well as M2M numbers under strict conditions is generally prohibited, with a few exceptions.

VoIP services are free from geographical restrictions and clients are often interested in having either foreign numbers or “flexible” numbers which do not link them to a certain area. Therefore, understanding of number use restrictions, allows providers not only to choose the appropriate type of number, but also avoid

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<sup>18</sup> ECC Recommendation 12(04) defines of “Nomadicity” as a feature of a service that makes that the service is not linked to a physical location and that the service can be provided from potentially any fixed or mobile network endpoint in the world for incoming and outgoing communication.

<sup>19</sup> [Regulation No 531/2012 on roaming on public mobile communications networks within the European Union.](#)

<sup>20</sup> [Regulation No 2017/920 amending Regulation \(EU\) No 531/2012 as regards rules for wholesale roaming markets.](#)

contractual risks with customers or other ECS partners and develop processes for successful verification of subscribers to ensure they are eligible for assignment of the requested number(s).

## Verification of Subscribers

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Most member states require ECS providers to request, verify and store certain information about their customers, prior to the provision of services, including the assignment of numbers. This verification requirement serves multiple purposes. First to ensure that all bills are sent to the actual subscriber of the service, but also to ensure compliance with any restrictions imposed in a national numbering plan. For instance, numbers that can only be used by persons entitled to them within certain geographic areas, as well as, if necessary, for ECS providers to be able to provide the necessary information about their subscribers to the law enforcement authorities.

It should be noted that the regulatory framework often makes a distinction between information required from natural and legal persons. The former must provide personal information regarding identification and place of residence; the latter must supply a certificate of registration, as well as proof of legal representation.

The EU regulatory framework does not contain any homogeneous requirements regarding the process of verification of subscribers, the types of data that shall be collected or provide any specific details on timeframe for storage of data. Therefore, EU member states have adopted different approaches regarding the amount of information which must be collected on subscribers and the timeframe for how long this data can be stored.

Certain jurisdictions, such as Belgium and Germany, have very detailed provisions in their telecommunication laws on requirements and processes regarding verification of subscribers, including the types of documents that are required and duration which data must be kept for. It should be noted that there is a difference between the timeframe for storing information related to the identity of subscribers and timeframe for retention of electronic communication traffic data, if applicable.<sup>21</sup>

Other jurisdictions – such as Denmark - often make provisions within electronic communication law on the type of information which must be collected from subscribers. However, such provisions often provide limited or no information on how verification should take place or how long information on subscribers should be stored.

Finally, other jurisdictions, do not have provisions regarding the verification of subscribers. In such cases, ECS providers may have to research whether requirements derive from regulatory provisions of other legislative documents and data protection instruments like the GDPR<sup>22</sup>. Other examples may include consumer protection regulations, criminal law, number portability or emergency service requirements, and even telecommunication traffic data retention requirements should be followed in order to ensure that all required measures in the identification of subscribers have been fulfilled and

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<sup>21</sup> For example, German NRA does not require retention of electronic communication traffic data, however, providers shall retain data on their subscribers – information on identity, address etc. For more information on retention of communication traffic data please see section 3.3 of this report.

<sup>22</sup> [General Data Protection Regulation \(EU\) 2016/679](#) which came into force on 25 May 2018 and has significantly affected protection of private data within the European Union.

stored as necessary. By obtaining all the required information on subscribers, ECS providers can not only ensure that payments are made on time but also that other regulatory requirements are fulfilled.

## Number Portability

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The requirement to ensure number portability is derived from the EU Universal Service directive<sup>23</sup> and stipulates that all member states must ensure that subscribers with numbers from the national telephone numbering plan can keep their numbers independently of ECS providers. Subscribers must be able to retain numbers in case of a change in fixed (geographic) numbers at a specific location, and in the case of non-geographic, at any location. Generally, subscribers cannot retain numbers if they request to change from a geographic (fixed) to non-geographic (mobile) service.

As previously mentioned, the regulatory framework does not distinguish between OTT connectivity and traditional electronic communication services. Therefore, if an OTT provider assigns numbers from the national telephone numbering plan to end users, then number portability will be required.<sup>24</sup>

The number portability process is strictly regulated, and applicable frameworks often include maximum timeframe within which portability must be completed. Additionally, they include details on the process for verification of subscribers<sup>25</sup>, and requirements in relation to how portability processes should be carried out between ECS providers. The process of portability and scope of the frameworks vary between EU member states. The requirement from the above-mentioned directive is very broad and is important to understand what types of numbers will be subject to portability rules in each member states, considering that portability may apply to various type of numbers. For example, the NRA in Greece requires portability of toll free or corporate VPN access numbers among others.

The timeframe within which number portability must take place varies across EU member states. In some jurisdictions, portability must be completed by the next working day once a request from an end user has been received like for example In Denmark. However, in other jurisdictions, this can take up to several days. Additionally, most EU member states require ECS providers to inform customers of portability processes in their terms and conditions, including potential compensation to customers if number portability is not complete within the timeframe, as required in the regulatory framework.

Often national regulatory frameworks delegate matters of portability to be handled by the industry itself when a national database is created for ECS providers or ECN operators to share numbers, such as the separate entity created in Denmark called Operators Clearing House A/S which supports number portability.

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<sup>23</sup> Article 30 of [Universal Service Directive](#)

<sup>24</sup> [ECC Report 273](#) on E.164 Numbering and Over-The-Top (OTT) Communications Services, page 31.

<sup>25</sup> Please note that subscriber verification process for number portability can be different from other forms of subscriber verification, for more information please see section on page 10.

## Emergency Services and ID Location of a Caller

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The Universal Service Directive<sup>26</sup> requires “undertakings providing end-users with an electronic communications service for originating national calls to a number or numbers in a national telephone numbering plan provide access to emergency services.” This obligation is extended to OTT services, as recommended by the ECC, whereby “any OTT service that uses or connects to services using numbers from national or international numbering plans, should support access to emergency service numbers”.<sup>27</sup> Ensuring access to emergency services is important not only for subscribers in need of assistance, but also for emergency services to be able to locate the caller.

However, the question is whether all types of services falling under the provision of the directive should ensure carriage of emergency services. For example, Belgium permits the nomadic use of numbers, for which emergency carriage services may not be possible to provide. The preamble of the National Numbering Plan of Belgium highlights concerns regarding emergency service capabilities of numbers via the VoIP. Nevertheless, in practice the NRA requires provision of emergency services for all types of numbers, including for use of nomadic numbers.

Therefore, most jurisdictions do not make a distinction between OTT, such as VoIP services, and other traditional telephony services. If the services provided, fall under the broad definition in the directive, then emergency carriage services shall be provided. Also, most member states require ECS providers to indicate in their terms and conditions whether emergency services will be provided or not.

It should be noted, that under certain circumstances – for example when only outbound dialling services are provided – the use of numbers may not be necessary from a technical perspective; nevertheless in some jurisdictions Calling Line Identification (CLI) are still required to identify the caller in the event of an emergency call.<sup>28</sup> Therefore, as recommended by the ECC, identification of a caller should be extended beyond traditional providers.<sup>29</sup> For the provision of emergency services a CLI is also legally required.<sup>30</sup>

In addition to the above, providers of emergency services in EU member states must provide caller location to emergency services as soon as the call is made.<sup>31</sup> This applies to all calls made to the single European emergency call number “112” and – where applicable – additional national emergency call numbers.<sup>32</sup> In case if VoIP providers use fixed numbers then generally, they must route emergency calls to the public safety answering point (PSAP) which is responsible for serving the area of the VoIP

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<sup>26</sup> Art 26 of the [Universal Service Directive](#).

<sup>27</sup> [ECC Report 273](#) on E.164 Numbering and Over-The-Top (OTT) Communications Services, page 2.

“The Electronic Communications Committee (ECC) brings together 48 countries to develop common policies and regulations in electronic communications and related applications for Europe, and to provide the focal point for information on spectrum use. Its primary objective is to harmonise the efficient use of the radio spectrum, satellite orbits and numbering resources across Europe. It takes an active role at the international level, preparing common European proposals to represent European interests in the ITU and other international organisations”. ECC is a part of The European Conference of Postal and Telecommunications Administrations (CEPT).

For more information please see the [link](#).

<sup>28</sup> [ECC Report 273](#), page 26.

<sup>29</sup> [ECC Report 273](#) page 32. For further information on technical as well as regulatory analysis for implementation and use of CLI, please see [ECC Report 248](#), Evolution in CLI usage – decoupling of rights of use of numbers from service provision.

<sup>30</sup> [ECC Report 59](#), Numbering for VoIP services, 2004.

<sup>31</sup> Article 26 (5) of the [Universal Service Directive](#). Please note that the restriction “to the extent technically feasible”, which was mentioned in Article 26 of the former Directive 2002/22/EC no longer applies.

<sup>32</sup> Please note that this directive was amended in 2009, and the restriction “to the extent technically feasible”, which was present in the previous text, has been removed.

user. However, it may be more complicated to route emergency calls to the correct PSAP for nomadic type of numbers, and as a result, some jurisdictions may adopt a more flexible approach in relation to these types of numbers.<sup>33</sup>

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<sup>33</sup> For more information please see [ECC Report 193](#) (emergency calls in VoIP Environment), see Survey on 112 emergency Caller Location in VoIP Based Networks in Europe. Also, the report has offered several solutions on how to offer emergency services when VoIP services are provided.

## OTHER OBLIGATIONS

### Telecommunication Obligations

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The requirements which have been discussed above generally apply to OTT providers assigning numbers to end users for provision of their services, with the possible exception of subscriber verification, which applies to internet services as well. However, if OTT provider is considered an ECS provider then additional electronic communication regulatory requirements will apply. The main requirements are to ensure protection of end users' data, the integrity and security of services, as well as enable law enforcement authorities – under certain conditions – access to electronic communications traffic data.

### Lawful Interception and Retention of Traffic Data

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ECS providers should enable lawful interception by authorized law enforcement entities if required to do so by a court order or other applicable form of authorization. The issue of lawful interception is not regulated by the EU regulatory framework; therefore, each member state must determine its own obligations and requirements. Generally, each ECS provider needs to implement certain technical measures that would enable provision of lawful interception.

However, in some jurisdictions ECS providers may be placed under less stringent requirements compared to ECN operators. For example, in Germany, an ECS provider must ensure that its ECN operator complies with lawful intercept requirements, and consequently will be under less stringent requirements itself. On the other hand, some EU member states allow outsourcing of lawful interception and in Denmark it is possible to entrust lawful interception obligations to one of the major network operators to oversee lawful interception. If outsourcing was not permitted in this instance, each ECS provider would be required to provide a security cleared point of contact, available 24 hours to accommodate national police requests.

There are also no harmonised data retention obligations among EU member states. The Data Retention Directive requires the retention of data, generated or processed in connection with the provision of publicly available ECS or ECN, for a minimum period six months and up to 24 months.<sup>34</sup> This was found to be invalid in its entirety by the ECJ which ruled that this provision is too wide and contradictory to the Charter of Fundamental Rights of the European.<sup>35</sup>

Consequently, based on this decision and decisions of national courts of a similar nature, several jurisdictions – including Germany and Slovenia – have removed or do not enforce retention of electronic communication traffic data obligations. However, some states still require retention of electronic communication traffic data so ECS should always check this requirement prior to the provision of services.

In addition to lawful interception requirements, ECS providers need to ensure that their services can ensure protection of data of subscribers, as well as ensure security and integrity of their services.

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<sup>34</sup>Art 6 of the [Directive 2006/24/EC on the retention of data.](#)

<sup>35</sup> [Digital Rights Ireland Ltd v Ireland C-293/12.](#)

## Data Protection

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The European Commission has issued directive on privacy and electronic communications which requires all public ECS to take the appropriate technical and organizational measures to safeguard security of its services.<sup>36</sup> Additionally, in accordance with the aforementioned directive, in the event of a personal data breach ECS providers shall notify the competent national authority no later than 24 hours after the detection of the personal data breach where feasible, and notify subscribers or individuals if the breach is likely to adversely affect them.<sup>37</sup>

It is important to highlight that data protection requirements under the directive generally relate to providers of ECS. Consequently, such providers need to comply not only with the GDPR provisions but also with the provisions of this directive, which are more stringent compared to the requirements derived from the GDPR.

This directive has been incorporated into national laws, and NRAs set up technical and organizational measures to implement provisions of the directive. For example, in Germany ECS providers should immediately notify NRAs<sup>38</sup> of each breach within 24 hours of it taking place. Furthermore, if breach concerns the protection of personal data, the provider must inform the persons concerned immediately. In addition, the NRAs provide technical requirements with which ECS providers will have to comply.

## Security and Integrity of Services

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In addition to the above, another EU directive, requires ECS providers to ensure security and integrity of their services. Under the provisions of the directive, ECS shall notify NRAs in case there is a breach of security or loss of integrity that has had a significant impact on the operation of networks or services.<sup>39</sup> As opposed to the directive on privacy and electronic communications, which is limited to breaches of personal data, a breach of security or integrity does not need to involve personal data of subscribers or other individuals, but might relate to the outage of services or have impact on emergency services.

As the directive confers wide discretionary power to national authorities, requirements vary significantly in each jurisdiction. Therefore, a breach in one jurisdiction – for example by the number of affected customers – might not be subject to notification requirements in one member state but could be required in another.

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<sup>36</sup> Art 3 of the [Directive on privacy and electronic communications](#).

<sup>37</sup> Art 2 and 3 of the [Commission Regulation \(EU\) No 611/2013](#).

<sup>38</sup> Provider needs to notify a Federal Network Agency (BNetzA) and to Federal Commissioner for Data Protection and Freedom of Information (BFDI).

<sup>39</sup> For further information please see Art 13a of the [Directive 2009/140/EC](#).



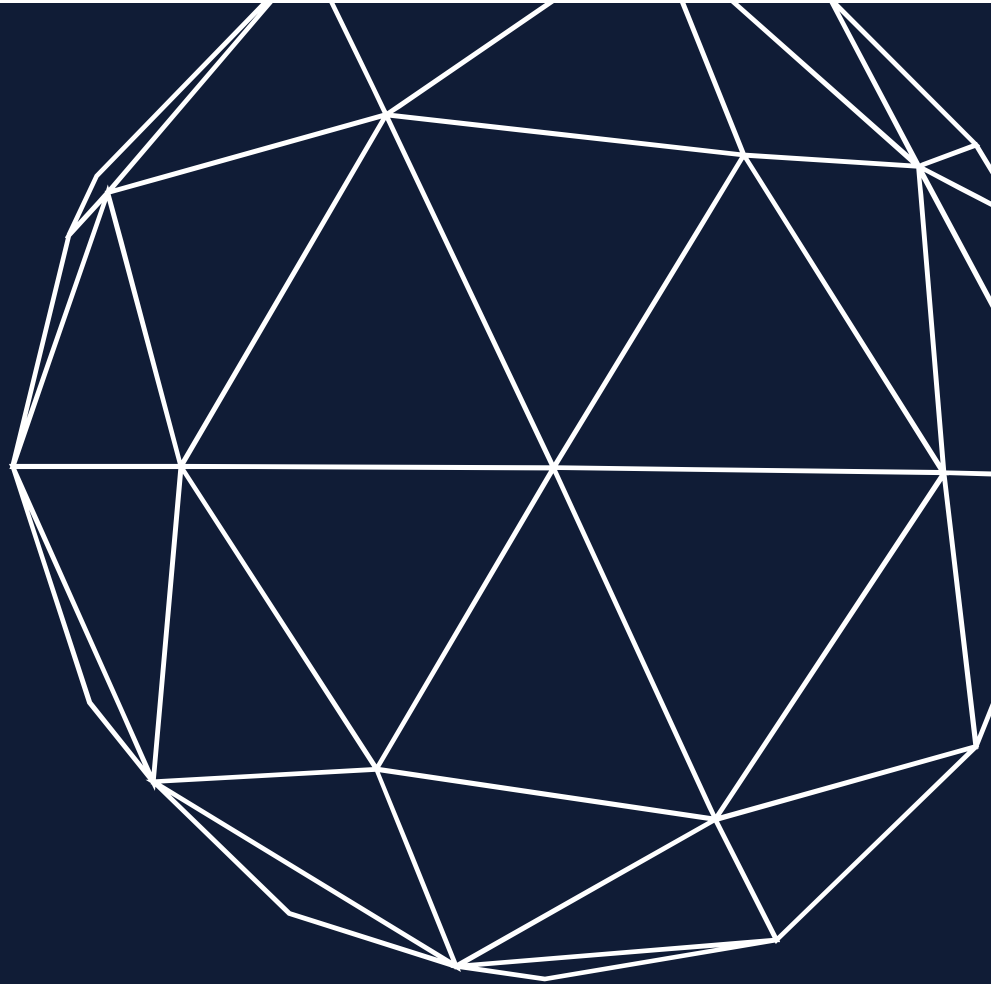
## CONCLUSION

As highlighted in this paper, regulatory approaches towards OTTs has begun to change, evidenced by recent ECJ court decisions. OTT connectivity providers assigning numbers or providing access via numbers to PTSN, such as the SkypeOut application, can expect to be classified as ECS providers and will need to comply with the regulatory framework applicable to traditional electronic communication providers. As such, OTT providers – depending on the type of service provided – may be subject to a number of requirements including, but not limited to:

1. Notification requirements and payment of regulatory fees
2. Obtaining of numbers either directly through NRAs or transfer from other ECS providers
3. Compliance with number use restrictions and requirements to verify their customers
4. Ensuring portability and access to emergency services for certain types of services
5. Enabling lawful intercept and retention of traffic data
6. Adopting necessary measures to safeguard security of services and protection of data.

The abovementioned requirements can be burdensome, especially considering the particular use of the technology and services provided. Moreover, the EU regulatory provisions relating to electronic communication issues may either allow NRAs wide discretion to interpret and implement the requirements or make no provisions at all.

Therefore, in addition to ascertaining whether an OTT service may qualify as an ECS, it is important to clarify the scope and extension of applicable national electronic communication requirements. The regulatory frameworks across EU member states can vary significantly, and a set of actions prohibited in one member state – such as the transfer of numbers – could be permitted in another. Finally, understanding the regulatory framework can not only help to avoid regulatory issues with NRAs, but also assist with fulfilment of commercial obligations towards local partners or customers.



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