

Proposal for the reform of the regulation of digital services

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Luisa ROSSI

Regulatory Affairs, Orange

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Executive Summary

The internet offers an ever richer choice of digital services delivered via telecommunication networks that are overall of great benefit to consumers in terms of choice, but that require the updating of the current legal framework to ensure effective customer protection and to preserve the public interest, especially concerning such transverse issues as transparency, non-discrimination, security and privacy.

The market is in transition, notably for voice and messaging services, with an increasing number of services such as those provided by “Over The Top” (OTT) internet players, existing alongside traditional services still provided by telcos operators and other services that result from partnerships between telcos and OTT providers or might even be produced by telcos in an OTT like fashion. The time when there was a clear distinction between electronic communication services (ECS), as produced by telcos, and information society services (ISS), only produced by OTTs, is over.

The old rules are no longer adequate and yet still apply, while new issues are not addressed and require action. This is why **it is now important for the legislative framework and regulatory practices to embrace this phase of development.** The European Commission has acknowledged the need for reforms and now needs to adopt a comprehensive approach to this task in order to fulfil the promise of creating the right conditions to stimulate growth in the digital market in Europe.

The starting point for the reforms should be the **creation of a digital services category** with the reclassification of traditional communication services, followed by the reorganisation of the associated obligations such as transparency and non-discrimination, security, privacy, data retention, emergency services, interoperability and portability. Hence, digital services would be subject to a common set of rules enshrined in **a new horizontal European legislation**, whichever the provider or the technology used. Such an approach should be preferred to sector specific rules.

This new horizontal text should be combined with the **review of the current electronic communications framework** to limit it to Electronic Communication Networks (ECN) and Internet Access Services (IAS), excluding all other communication services, such as traditional telephony, that could then be covered by the new horizontal instrument, as would VoIP telephony. An assessment of the impact of these changes on the Framework Directives and other related regulations shows that they would lead to welcome clarification and updates.

This paper recommends a new classification of digital services and proposes principles that should drive the reorganisation of associated obligations. It provides a future structure for clear and effective provisions supporting consumer protection, the defence of public interests and fair competition.

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Introduction

The richness of the internet offer is of great benefit to consumers, but there are digital services that challenge the current regulatory approach, because the old rules, which are no longer adequate, still apply while new issues are not addressed and require action.

How should the regulation of digital services be managed in the internet age? This is the question addressed in the two chapters of this paper. Chapter One presents the shortcomings of the current regulatory approach and explains why this is the right time for reform, while Chapter Two describes a proposal founded on the revision of the definitions of the regulatory categories for digital services, the introduction of a new horizontal law and the updating of telecom services regulations.

1 Challenges to current rules

1.1 *A market in transition*

The internet offers an ever richer choice of digital services delivered via telecommunication networks. Today, carrying out transactions online has become second nature, with more and more of us going online for shopping, banking, information and entertainment, a trend that will continue to increase with new services in the cloud for instance.

The internet revolution brings novelties requiring an updating of the current legal framework. Business models have evolved in particular with the introduction of so-called two-sided markets. With such models, digital services are apparently offered “for free” to customers and remunerated, for example, through the monetisation of customers’ profiles to advertisers. Although such practices are not illegal, their transparency is questionable. Customers are not always aware of the way services are financed, and European rights¹ concerning the exploitation of personal data are not always fully applied; these include the right to access data, to object, to erase, to unambiguously given consent, rules for legitimate purpose, rules for the transfer of personal data outside the EU, etc...

Furthermore, the pivotal role of digital services in our everyday lives calls for:

- more **transparency** in the way content is provided, especially concerning the increasingly blurred boundaries between advertising and information,
- fairness in the way content is presented, especially concerning **non-discrimination**; customers should be able to determine whether the content provided is as a result of generic algorithmic selection, customisation or a preference chosen by the digital service provider and
- high **security**.

New policies aimed at providing a consistent framework for the internet should remove the ambiguity from supposedly “for free” transactions and establish clear rules concerning the way content is presented to customers. Moreover, new policies should adopt a horizontal approach to security obligations. With the spread of internet encryption and browser proxies, the traditional role

¹ The Data Protection Directive 95/46/EC.

of network operators as the ‘keepers’ of security is being challenged and security would no longer be guaranteed if the obligation continues to apply only at the network level.

More specifically, telecoms infrastructure and services were historically bundled and provided on a monopoly basis with telephone services as the main offering. The liberalisation of the industry in the 90’s brought with it a large number of new policies aimed at securing the protection of consumers with measures such as access to emergency calls, simplified number portability rules and privacy and confidentiality obligations; there were also policies aimed at protecting the public interest, with measures such as interoperability requirements, universal service, provisions for legal interceptions and financial contributions.

Digital services aimed at connecting people have greatly evolved. Thanks to the availability of connectivity services provided by network operators, an increasing number of voice, text, photo, video messaging and geolocation services are provided OTT by internet players, alongside traditional services still provided by telecoms operators. These new communications services - which were initially only provided by telecoms operators in a bundle including a connectivity service - are now delivered over the internet (OTT) “...*bypassing the traditional distribution channels...*”² independently of network provision and as extensions of social networks or applications for smartphones and tablets (so-called “apps”). As launching apps does not require significant time and investment, this market is very dynamic with several popular apps available³. The volume of OTT messages sent is already estimated to exceed standard SMS messages⁴ and forecasts are unambiguously in favour of OTTs.

To complete the picture, it should be noted that communication services are also provided as new features of video game consoles: the new Live Chat function on the Microsoft Xbox 360 allows the setting up of conversation facilities between players, a trendy new option also present on the Nintendo PS4 console where the new Party function allows up to 8 players to talk and send texts.

Although customers benefit from this rich variety of offers that often comes at very low cost, they are also confronted by confusing terms and conditions, particularly concerning emergency services, personal data protection and data portability. This already flourishing offer is also undergoing profound technological evolutions and changes, both in the telecoms and the OTT markets.

A market in transition for telecoms operators

Over the past few years, several telecoms operators have launched Rich Communication Suite⁵ (RCS) services under the GSMA’s joyn brand, a standard-based solution that provides consumers with instant messaging or chat, live video and file sharing services that are interoperable across telecoms operators and offer backward compatibility with SMS and MMS. RCS represent the industry’s official collective solution for enriched communications. Nevertheless, RCS services take many years to deliver because of the complexity of deploying the required technology to make the service widely

² October 2014, “Explanatory note accompanying the Commission Recommendation on relevant product and service markets”, page 16. <http://ec.europa.eu/digital-agenda/en/news/explanatory-note-accompanying-commission-recommendation-relevant-product-and-service-markets>

³ Popular Apps: WhatsApp, Facebook Messenger, Line, Viber, Apple iMessage, Telegram, WeChat and Google Hangouts.

⁴ Analysis Mason, January 2014: “OTT Messaging Volume will Nearly Double in 2014.”

⁵ <http://www.gsma.com/network2020/rcs/>

available and interoperable in compliance with telecom regulations, while OTT services operate in closed communities where only those who have downloaded and signed into the OTT service can communicate.

Telecoms operators can exploit standard-based technology supporting advanced communication services over LTE networks, technology that is expected to help them deploy voice and video and cut operating costs to compete with OTT applications based on quality.

For telecoms operators, there is also the possibility of partnering with OTT service providers. This is the case for WhatsApp's cooperation with SingTel and with the German MVNO E-Plus, offering subscribers a special data rate for WhatsApp messages, videos and pictures, or for Skype that has partnership deals with Verizon and H3G. Finally, telecoms operators have also started to produce their own "OTT like" services⁶ enabling interaction with conventional messaging services.

The time when there was a clear distinction between ECS offered by telcos and ISS offered only by OTTs is over.

A market in transition for OTT providers

Analysys Mason forecasts that the worldwide active user base of OTT VoIP services across all devices will grow from 572 million at the end of 2013 to over 1.5 billion at the end of 2018⁷. The uptake of the OTT market is closely linked to the adoption of smartphones in Europe, which, according to GSMA, had already reached an average of 49% in June 2013⁸, with an estimated 254 million smartphone users in Western Europe⁹.

An even more significant indication that the OTT market will continue to grow is Facebook's USD 19 billion acquisition of WhatsApp, a merger recently approved by the European Commission¹⁰. Currently a messaging application, WhatsApp is expected to implement voice over internet protocol (VoIP) to allow its 600 million active users to make VoIP calls¹¹.

Overall, this evolution is definitely good for users and consumers in terms of choice, but because of obsolete legislation the market is not appropriately regulated and public interest is challenged, consumers are insufficiently protected, while competition is distorted. This situation requires action.

1.2 The right time for reforms

The market transition calls for a new look at regulation, because current regulatory inconsistencies have a significant impact on customers, public authorities and the industry. In particular:

- **European customers should be protected according to European law.** Regulations should apply irrespective of the country of origin of the digital service provider, be they established in the EU or outside European Union borders, whenever the European market and/or European citizens

⁶ Several telecoms operators have launched their own OTT like service: A1 over IP (Telekom Austria), Libon (Orange), Bobsled (T-Mobile), freeyah (T-Mobile Poland), Tele2 +46 (Tele2), TU Go (Telefónica).

⁷ Analysys Mason, December 2013: "OTT communication services worldwide: forecasts 2013-2018".

⁸ GSMA (June 2013), "Mobile Economy Europe 2013." <http://gsmamobileeconomyeurope.com/>

⁹ GSMA (2014), "The mobile economy 2014."

¹⁰ europa.eu/rapid/press-release_IP-14-1088_en.htm

¹¹ www.geektime.com/2014/10/12/exclusive-whatsapp-to-pioneer-voip-call-recording/

are concerned, no matter where the digital service provider is domiciled or where the activity is conducted.

- **Customers should be protected when using supposedly “for free” transactions.** With the spread of two-sided market business models that do not imply direct remuneration, there is a need to update the current criteria for definitions to ensure that such transactions are covered by European law.
- **Fairness in the way content is presented.** The lack of horizontal approach of the current transparency and non-discriminatory rules does not always grant the customer access to the content of their choice and customers are not always aware of possible restrictions. In this respect, the French *Conseil Nationale du Numérique* in its recent report (see [CNN]) observes that the prescriptive role of many of these digital service providers shapes and determines the way we access data," ...it is therefore imperative that their ranking and content management systems are fully transparent and easily understood."¹² The fairness of digital services is also the subject of complaints at the European level.¹³
- **There is a need to reform the current regulatory framework for telecommunications.** Designed at a time when the role of telecommunications operators was essentially to provide traditional telephony services, the new telecommunication regulations should focus on the central role of Electronic Communication Networks (ECN) and Internet Access Services (IAS).
- **Similar services should be governed in a similar way.** OTT and telcos services are not treated the same way by regulators and this difference is not clear to customers. OTT services do not necessarily afford customers comprehensive protection, in particular when providing services which are similar to those provided by telcos (e.g. emergency calls, transparent contracts, portability and personal data protection¹⁴). The technical nature of services delivered over communication networks is rarely apparent from a user point of view. However, ‘behind the screens’, the differences and risks for consumers may be significant - both in terms of the rules that govern them and the confidence that the public may reasonably place in them.

These inconsistent regulations significantly distort competition in the European digital market¹⁵. Currently, OTT services do not have to comply with public authorities’ requirements in terms of security, integrity and lawful intercept and, with the spread of internet encryption and browser proxies, network operators might no longer be able to fulfil their obligations; for example, OTT encryption might prevent network operators from identifying and blocking websites in the fight against sexual abuse and the sexual exploitation of children¹⁶, and also affects the ability of network operators to track malware and other technical intrusions.

- **Regulation should apply irrespective of the core business of the digital service provider;** in other words, being a network operator or an OTT provider should not impact the legal

¹² May 2014, Conseil National du Numérique: “Platform Neutrality: building an open and sustainable digital environment”. www.cnnumerique.fr/en/platform-neutrality-building-an-open-and-sustainable-digital-environment/

¹³ In March 2013, FairSearch filed a complaint to the European Commission related to Google search engine.

¹⁴ September 2014: WG29/CNIL issued a Compliance Package to Google:

www.cnil.fr/english/news-and-events/news/article/google-privacy-policy-wp29-proposes-a-compliance-package/

¹⁵ Ovum: “The Future of Voice. Voice will retain an important though diminished place in the telecoms industry”, July 2012, ovum.com/research/the-future-of-voice/

¹⁶ Art. 25 of Directive 2011/92.

classification of the provided services (avoiding the so-called “contagion effect”). With the current legal framework, for example, e-mail services provided by telecom operators do not belong to the same category of services as OTT e-mail services.

- **Even access to innovation.** The evolution of standard-based telecoms industry services, such as RCS, requires prior consensus, both in principle and in terms of execution, between large organisations in order to ensure interoperability, and thus lags behind. At the same time, competing OTT services are free to innovate as they escape from most European regulations. A top manager at Google gave the following description of the strategy they have adopted “...build better products that consumers are so excited about that they will help to fix regulations”.¹⁷ Such a strategy implies financing the development of services that are at odds with regulation from their initial design stage, which is, concerning data protection rules, for example, exactly the contrary of the “privacy by design” principle.

In contrast, telecoms operators are efficient and “compliance oriented” organisations that allocate resources only to projects with a high probability of conforming to current or planned laws or competition requirements. Telecoms operators do not invest in projects that could jeopardise their network licences. Therefore, the more efficient a telecoms organisation is, the less noticeable are the missed opportunities due to strict regulations, because such projects would not even pass the initial legal checks, making this important discrepancy with OTTs difficult to quantify. As an example, telecoms operators cannot deploy services that analyse SMS text messages in order to target advertising, as do certain OTT providers of e-mail services, because the operators would risk losing their telecoms licence. As a result, it is currently difficult to quantify missed opportunities for innovation for the telecoms operators.

- **Risk of market fragmentation.** There is a tendency to regulate digital services to compensate for the inadequacies of the current EU framework, thereby fragmenting the market at EU level (see the French Council of State publication: “*Le numériques et le droits fondamentaux*” – digital and fundamental rights [CDE]. In addition, there is also a tendency to reinforce regulation in the telecoms sector instead of embracing horizontal approach, because of the practicality of dealing with the domestic players instead of addressing foreign companies.
- **Regulation should take advantage of reliable innovations in the public interest.** Nowadays, digital services are reliable and offer features that could complement telecoms services, for example: emergency calls with mobile tracking services¹⁸. In the field of user access to the content and services of their choice, parental control brings powerful functionalities that can be customised at an individual level.

The European Commission has recognised the lack of a level playing field¹⁹ and, at the same, time has acknowledged the competitiveness of the traditional communication services market by removing

¹⁷Quote from Jonathan Rosenberg, Google Advisor, Oct. 2014: www.latimes.com/business/la-fi-schmidt-rosenberg-google-20141023-story.html#page=1

¹⁸ Kinomap makes video coupled with GPS tracking and allow the watcher to follow on a map the route taken by the camera holder. Navi Black Box uses a 4G smartphone to tape video footage through the car’s windscreen and, thanks to its G-Sensor option, a video of the last seconds is sent in case of a collision.

¹⁹ Connected Continent Communication, Sept. 2013: the next review “could also address the level playing field between the rules that apply to “over-the-top” online services compared to telecoms services”.

from the new Recommendation on Relevant Markets²⁰ the requirement for ex-ante specific obligations for traditional voice services. The Commission has also initiated several other actions to modernise the European digital economy, and these actions could converge into a consistent framework. The list of possible measures for the Commission includes:

- a proposed regulation called the Telecoms Single Market²¹ (TSM),
- the review of the Telecom Package²² expected to be launched during 2015²³,
- a proposed regulation called the General Data Protection Regulation²⁴ (GDPR), which takes a cross-sector and extraterritorial approach,
- the proposed Network and Information Security (NIS) Directive²⁵,
- and, finally, following the European Court of Justice decision rendering void the Data Retention Directive²⁶, the eventual reform of personal data storage for lawful interception.

There should be a comprehensive plan driving the above mentioned reforms, and this plan should also be completed by the horizontal extension to the whole internet value chain of obligations concerning transparency, non-discrimination, security and consumer protection.

The following chapter describes a global approach including a horizontal proposal and a review of the scope of telecommunications services regulations that could address the issues highlighted so far.

²⁰ ec.europa.eu/digital-agenda/en/news/commission-recommendation-relevant-product-and-service-markets-within-electronic-communications

²¹ Proposal for a regulation of the European Parliament and of the Council laying down measures concerning the European single market for electronic communications and to achieve a Connected Continent - COM(2013) 627.

²² The complete Telecom Package: ec.europa.eu/digital-agenda/en/telecoms-rules.

²³ Council of the European Union 2013/0309 work plan, 21 November 2014.

²⁴ Proposal for a General Data Protection Regulation (GDPR) on the protection of individuals with regard to the processing of personal data and on the free movement of such data, COM(2011) 795 final.

²⁵ Proposal for a Directive concerning measures to ensure a high common level of network and information security across the Union - COM(2013) 48 final - 7/2/2013 - EN

²⁶ See: ECJ Judgment in Joined Cases C-293/12 and C-594/12.

2 A plan for reforming digital services

This section highlights the limits of current definitions in a market in transition and presents a horizontal plan for reforming the European regulations for digital services. The eventual adoption of the reform we propose would not concern the current regulations for Electronic Communication Networks (ECN), which is not in the scope of this paper. The description of the proposed reform is organised into two steps: firstly, a proposal for the revision of current definitions, followed by a description of how obligations associated with the new service categories should be organised.

2.1 Revised definitions for a market in transition

The European regulations for digital services have been built on three categories of services, namely Electronic Communication Services²⁷ (ECS), Information Society Services²⁸ (ISS) and Audio-Visual Media Services (AVMS). Belonging to one of these categories determines the sector-specific regulatory regime, the “lex specialis”, which applies to a service. To complete the picture, horizontal instruments also apply that govern intellectual property, privacy, consumer protection and competition. This paper focuses on the limitations of the current ECS and ISS definitions and does not address AVMS.

The ISS and the ECS regimes differ considerably. As recognised by the Commission²⁹, ECS providers “have to comply with provisions related to minimum contractual rights, transparency and quality of service obligations (such as call set-up time, speech connection quality) stemming from the Universal Service Directive. They further have to contribute to possible universal services funds. In addition, providers of ECS shall ensure access to emergency services (including the “112” number) and possess a technical infrastructure for caller location information to be provided free of charge to the relevant national authority. Finally, they are often subject to specific administrative charges that cover the cost of regulation of the ECS sector, as well as to sector-specific taxes whose revenues are used outside the sector.” To this already long list, the following obligations should also be added: interoperability, portability, security, legal interception and reinforced privacy rules.

²⁷ “Electronic communications service” is defined in Art. 2(c) of Framework Directive as: “means a service normally provided for remuneration which consists wholly or mainly in the conveyance of signals on electronic communications networks, including telecommunications services and transmission services in networks used for broadcasting, but exclude services providing, or exercising editorial control over, content transmitted using electronic communications networks and services; it does not include information society services, as defined in Article 1 of Directive 98/34/EC, which do not consist wholly or mainly in the conveyance of signals on electronic communications networks.”

²⁸ “Information Society Service” is defined in Article 1(2) of Directive 98/34/EC and amended by Directive 98/48/EC as “any service normally provided for remuneration at a distance, by electronic means, at the individual request of a recipient of the service”.

²⁹ “Study on future trends and business models in communications services and their regulatory impact”. ec.europa.eu/digital-agenda/en/news/study-future-trends-and-business-models-communications-services-and-their-regulatory-impact

2.1.1. Current definitions are unworkable and cause confusion

Due to the considerable differences in the regulatory regimes, the definitions of services are crucial and should be reviewed in line with the market evolutions highlighted in the previous chapter.

The current ISS definition has its limits, notably concerning the new business models deployed in the digital market place. The practice of the so-called two-sided market, the monetisation of user profiles via targeted advertisements, introduces new economic dynamics which are more complex than the subscription model based on direct remuneration. This questions the relevance of the remuneration criterion as shown in the recent Google Spain case in which the European Court of Justice Advocate General concludes that: "...internet search engine providers like Google, who do not provide their service in return for remuneration from internet users, appear to fall in that capacity outside the scope of application of e-commerce Directive 2000/31."³⁰

Concerning ECS, the inadequacies are such that the very need of maintaining such a definition is questionable. The recent decision of the Commission to remove ex-ante specific obligations for traditional voice services³¹ is a first step in the direction of reducing the regulatory burden on fully competitive services. In addition, as highlighted in [ALLU. & All], the "conveyance of signals criterion" in the ECS definition has become impractical and outdated since technology allows ISS providers to deliver web-based services, which do not require the conveyance of signals, but look and feel like telecommunication services from the user standpoint. As a result of the application of this criterion, e-mail services provided by telecommunications operators belong to the ECS category, while e-mail services provided by OTT providers belong to the ISS category, and this applies to any online service provided by telecoms operators that implies the conveyance of signals. This inconsistency provides for a high degree of legal uncertainty for customers and results in regulatory fragmentation in the single market.

More generally, the current regulatory classification of services is increasingly controversial: the Hogan Lovells & Analysys Mason study³² highlighted the difficulty of classifying not only VoIP telephony, but also cloud computing and content delivery network (CDN) services; the consultation of the Belgian National Regulatory Authority on "the obligation to declare oneself as an operator"³³ has underlined the limits of the current regulatory approach to the classification of VoIP telephony, a limit also addressed by the ARCEP request to Skype/Microsoft³⁴ to declare themselves as a telephone provider and to comply with the corresponding obligations; and finally, the recent Data Retention and Investigatory Powers Act³⁵ in the UK with its extended definition for "telecommunications services" to include OTT services available in the UK, provides another example of how impractical definitions are used to regulate the digital market.

³⁰ May 2014 ECJ Google Spain Case C-131/12, Recital 37.

³¹ See footnote 20.

³² Hogan Lovells & Analysys Mason: "Etude sur le périmètre de la notion d'opérateur de communications électronique", June 2011. www.arcep.fr/uploads/tx_gspublication/etude-Hogan-Analysys-juin2011.pdf

³³ www.ibpt.be/public/files/en/21295/EN_Consultation-note-operateurs-UK.pdf

³⁴ [www.arcep.fr/index.php?id=8571&tx_gsactualite_pi1\[uid\]=1593&tx_gsactualite_pi1\[backID\]=26&cHash=b6dd1d8afae2c3ab0518d79c70d8a59e&L=1](http://www.arcep.fr/index.php?id=8571&tx_gsactualite_pi1[uid]=1593&tx_gsactualite_pi1[backID]=26&cHash=b6dd1d8afae2c3ab0518d79c70d8a59e&L=1)

³⁵ DRIP Act, July 2014: www.legislation.gov.uk/ukpga/2014/27/pdfs/ukpga_20140027_en.pdf

To conclude, ISS and ECS regulatory definitions, conceived at a time when the internet was in its infancy, are not adapted to the evolution of the digital market and need to be reviewed.

2.1.2 New definitions

The most practical way to ensure the consistent regulation of digital services is to redefine the traditional ECS and ISS regulatory categories in such a way that directly competing services are placed in the same legal category. This paper proposes to regulate competing services under a new legal definition covering all digital services, including traditional voice and SMS/MMS messaging, to ensure that all services are governed in the same way. This option would be a future proof solution in line with the transitory nature of the Telecom Package and with the Recommendation on Relevant Markets³⁶, which removes traditional telephony from the list of relevant markets.

<p>Cross-sector definition (in a new European law)</p> <p>“Digital services” are any services provided at a distance and by electronic means.</p> <p>The new <i>digital services</i> category includes previously ISS and therefore OTT services, digital services provided for free and apparently provided for free, traditional telephony and SMS/MMS messaging</p>
<p>Sector-specific definitions (in the Telecom Package)</p> <p>“Internet Access Service” means a publicly available service that provides connectivity to the internet, and thereby connectivity between virtually all endpoints connected to the internet, irrespective of the network technology used.</p> <p>“Electronic Communication Services”: deleted.</p> <p>“Electronic Communication Networks”: maintained.</p>

Table 1: **Proposed new definitions.**

Table 1 shows the definitions we propose. These definitions are designed to accompany the digital market transition by fixing the current shortcomings by placing directly competing services in the same legal category. To highlight the change, we propose to introduce a new category, called, for example, “digital services”, which would contain the current ISS, and therefore current OTT services, traditional telephony and SMS/MMS messaging, as well as services making use of two-sided market business models that are currently well established in the digital market. To allow for this extension, the “digital services” definition should not include any remuneration criteria as is currently the case today in the ISS definition. The wording of the digital services definition should make it clear that:

- services provided for free are “digital services”;
- services “indirectly” remunerated are “digital services”, where indirectly means services provided for “free” to customers and remunerated by monetising advertisements, downloads or analytics, selling user profiles to third parties, etc...);

³⁶ See footnote 20.

To complete the transfer of traditional voice and SMS/MMS messaging from the ECS category to the new category of “digital services”, the ECS definition should also be reviewed. The best way to address all the inadequacies described in the previous section would be to delete the ECS definition itself. In this case, the scope of the Telecom Package would be limited to Electronic Communication Networks³⁷ (ECN) and Internet Access Services³⁸ (IAS) as defined in the TSM draft. Conceived at a time where the main objective of networks operators was to deliver traditional voice services, the Telecom Package should be adapted to the now main activity of network operators, which is to deliver transparent and non-discriminatory retail access to the internet (IAS). Sector-specific retail regulations, as defined in particular in the Universal Service Directive, would remain applicable to Internet Access Services.

Telecom Package obligations concerning traditional voice and SMS/MMS messaging, which are still relevant, should be transferred to a new horizontal instrument. The Telecom Package obligations concerning ECS that remain relevant for IAS should be maintained and reworded for IAS. Section 2.2.2 Review of service regulations in the Telecom Framework describes the necessary changes to the Telecom Package.

An alternative option to our proposal would be to include OTT services within specific telecom regulations. This could be done by extending the scope of the ECS to include substitutes of telco services such as Skype. However, this solution would not be future proof, because such rules would become obsolete with the arrival of new services. It could also be done by extending the scope of the Telecom Package to all OTT services. However, extending the scope of powers granted to NRAs to all digital services might go beyond the acceptable boundaries for administrative bodies. The present proposal does not discuss this option any further.

The inadequacy of the current definitions in providing a framework for the digital market has been highlighted by scholars and policymakers and there is an ongoing debate on the regulatory definitions that should be used. As an example of this debate, the French Council of State has recommended that the Commission introduce a new definition for platforms in European law (see [CDE]). In our view, such an approach could help regulators define new providers’ responsibilities, but would not be future proof in a market in transition, because it would require regular revision with predictable challenges from services concerning overlaps between such definitions. We chose to explore a more general approach to definitions in the interest of being ‘future proof’.

³⁷ Art. 2(d) of the Framework Directive.

³⁸ Art. 2 (14) of the TSM proposal introduces a new definition: “ *‘internet access service’ means a publicly available electronic communications service that provides connectivity to the internet, and thereby connectivity between virtually all end points connected to the internet, irrespective of the network technology used;* “

2.2 New organisation of rules

Table 2 shows the application of the new definitions as proposed to the main services in the digital market. This table also shows the Telecom Package obligations that should be maintained and incorporated into a new horizontal instrument. Thanks to the proposed new definitions, e-mail, instant messaging, e-commerce, video, cloud computing, telephony services, SMS/MMS messages and web applications would all be classified as digital services irrespective of the status of their provider, be they a telecoms operator or an OTT player.

<i>Providers</i>	Telecoms operators		OTT or telecom operators
<i>Networks</i>	Electronic Communication Networks		
<i>Services</i>		Internet Access Services	E-commerce, web-based content Hosting services Search engines VoIP pc-to-pc VoIP to and from PSTN E-mail services Instant Messaging services SMS/MMS messaging Traditional voice
<i>Main Telecom-sector obligations</i>	Interoperability ⁽⁴⁾ Net neutrality ⁽⁴⁾ Security and integrity ⁽⁴⁾	Interoperability ⁽⁴⁾ Net neutrality ⁽⁴⁾ Security and integrity ⁽⁴⁾ Emergency calls⁽⁴⁾ Sector-specific — privacy rules⁽⁴⁾ Number portability USO contribution Legal interception^{(4) (5)}	
<i>Main cross-sector obligations</i>			Intermediary liability regime ⁽¹⁾ Cross-sector privacy rules ⁽²⁾ Consumer protection rules ⁽³⁾ Content specific regulation (copyright, media pluralism, etc.) NEW Digital Services law (ISS + traditional voice + SMS/MMS) Emergency services and other digital social services, lawful intercept, portability, openness, transparency, non-discrimination, etc...

(1) Directive 2000/31/EC of 8 June 2000, called the E-Commerce Directive.

(2) Directive 95/46/EC of 24 October 1995, called the Data Protection Directive and its evolution the proposed General Data Protection Regulation.

(3) Directive 2011/83/EU of 25 October 2011, called the Consumer Rights Directive.

(4) Telecom Package (see footnote 22).

(5) Directive 2006/24/EC of 15 March 2006, called the Data Retention Directive declared invalid in 2014, and to be reviewed soon.

Table 2 – New classification of digital services and the reorganisation of main obligations.

2.2.1 Introducing a new horizontal instrument

The new horizontal instrument will be referred to as the European “Digital Services Law” from now on, where “digital services” corresponds to the new category of services described above. The main provisions that should be included in the Digital Services Law are presented in this section.

The main purpose of the Digital Services Law would be to regulate those digital services that are relevant for customers and that serve a public interest.

Territorial scope

The question of the applicability of the European laws and regulations to services provided by non-European companies is a crucial question that has recently been addressed by the European Court of Justice in its Google Spain ruling³⁹ adopting an extensive interpretation of the current data protection framework to extend its territorial scope, thereby demonstrating the need for a new approach to the criteria in order to establish the applicable law. In this regard, the General Data Protection Regulation proposal in its Territorial Scope article⁴⁰ provides an interesting innovation, because it confirms that European law applies to any service targeting the EU market.

Establishing that European law applies to any service targeting the European digital market should be the preferred option, as precise criteria ensure legal safety for customers and companies. This should be included in all the legal instruments that apply to the digital market. In addition to articles ensuring that European law equally applies to European and non-European digital service providers, European law should orchestrate the proper implementation of enforcement mechanisms.

Proportionality

The new Digital Service Law should only be applicable to “relevant” services in the digital market. Services that are not yet “relevant”, or that remain at a marginal market share could benefit from a lighter regulatory regime. Allowing room for innovation triggers the need to specify an effective proportionality principle.

If, on the one hand, the principle of proportionality that has already been included, for example in the Telecom Package⁴¹, allows room for innovation in a dynamic market, on the other hand it raises the issue of establishing a criterion for considering a service relevant. An example of how the criterion of relevance could be defined is provided by OFCOM when, in 2007, it established that the regulation of services is relevant insofar as at least 10% of UK households use it⁴². Such a pragmatic approach could be used in the Digital Services Law.

³⁹ See ECJ case C-131/12. For the ECJ, Google Spain is engaged in the effective and real exercise of activity through stable arrangements in Spain, therefore the establishment criterion is fulfilled.

⁴⁰ General Data Protection Regulation proposal Article 3 on: “Territorial scope: 1. This Regulation applies to the processing of personal data in the context of the activities of an establishment of a controller or a processor in the Union. 2. This Regulation applies to the processing of personal data of data subjects residing in the Union by a controller not established in the Union, where the processing activities are related to: (a) the offering of goods or services to such data subjects in the Union; or (b) the monitoring of their behaviour. 3. This Regulation applies to the processing of personal data by a controller not established in the Union, but in a place where the national law of a Member State applies by virtue of public international law.”

⁴¹ See Art. 31 of the Universal Service Directive.

⁴² OFCOM (2007) “Regulation of VoIP Services: Access to the Emergency Services” paragraph 1.18.

Transparency and non-discrimination

Digital services customers should have transparent and non-discriminatory access to their choice of legal content and applications. Any player in the internet value chain, including hardware and operating systems providers, should be obliged to inform their customers of any restrictions when using their products.

This is especially relevant when looking at search engines. The Federal Trade Commission raises a point when it observes in its letter to search engine providers⁴³ that "... consumers ordinarily expect that natural search results are included and ranked based on the relevance to a search query, not based on payment from a third party". Search engines are not the only digital services providers who fail to make a clear distinction between advertising promises and information or contractual commitments.

Moreover, the concentration of a very limited number of search engines has created the risk that search algorithms can potentially favour some websites and fail to include others, thereby biasing the information made available to users online. As highlighted by the French *Conseil National du Numérique* in its Recommendation 3 (see [CNN]), users need to know when a platform personalises, promotes or demotes certain results.

To take action in response to these concerns, the new Digital Services' Law should contain an obligation of cross-sector transparency and non-discrimination to ensure that users are informed of any limits in the availability of content or applications. Also, that users should be able to easily distinguish information from advertising and finally that users should be informed when a digital service provider personalises, promotes or demotes certain results.

Security

As recognised by former Commissioner Neelie Kroes for the Digital Agenda in Europe" ...rules on reporting data breaches should not be for the telecom sector alone and that is why we proposed extending them through the Network and Information Security Directive."⁴⁴ The internet value chain is as strong as its weakest link and so the provisions of the NIS directive should apply to all players in the digital economy, including operating systems and hardware providers. Moreover, with the spread of internet encryption and browser proxies, network operators might no longer be able to fulfil their obligations. Digital services should therefore be within the scope of the NIS Directive and of any other instrument designed to make services' secure.

To complete the picture, the Telecom Package should maintain current security provisions for IAS and ECN and consistency should be ensured between the NIS directive and the Telecom Package, notably concerning the practical details on how and to which Authority security breaches must be notified.

Privacy

The telecom sector is no longer the only sector intensely processing personal data and recent security breaches have demonstrated serious weaknesses in the way personal data is protected

⁴³ <http://www.ftc.gov/sites/default/files/attachments/press-releases/ftc-consumer-protection-staff-updates-agencys-guidance-search-engine-industryon-need-distinguish/130625searchenginegeneralletter.pdf>

⁴⁴ Commissioner Neelie Kroes speech, 1st October 2014: http://europa.eu/rapid/press-release_SPEECH-14-647_en.htm

online: eBay announced in March 2014 that its database containing encrypted passwords and other non-financial data had been hacked; in April 2014, the Heartbleed bug was disclosed, rendering approximately half a million of the internet's secure web servers, certified by trusted authorities, vulnerable to the attack .

This calls for a cross-sector approach with rules that apply to all players. The general approach of the reform proposed by the General Data Protection Regulation, even if too prescriptive in many respects, is heading in the right direction, particularly concerning the extraterritorial reach of European law. The GDPR should be soon finished and completed by the simultaneous repeal of the e-Privacy Directive.

Art. 5 of the e-Privacy Directive on the confidentiality of communications should be maintained and transferred to a regulatory instrument that encompasses any service aimed at interconnecting people. The GDPR would be an adequate instrument for this.

Data retention

Following the European Court of Justice ruling invalidating the 2006 Data Retention Directive⁴⁵, the Commission is now questioning the need for the reform of personal data storage rules for lawful intercept. Considering that the European Court of Justice ruling confirms that the principle of storing personal data for lawful intercept remains valid and that the majority of Member States maintain national laws, the new Digital Services Law could integrate cross-sector data retention obligations. Such obligations should be proportionate, as required by the European Court of Justice ruling and should be based on the principle that each player in the internet value chain is in charge of retaining its own data because, with the spread of encryption and the use of proxy browsers, each player in the internet value chain would be responsible for data retention.

Emergency services

The need to take a cross-sector view of emergency services is well established and recognised by authorities.

In 2013, BEREC observed that: “another well-trodden example is that of certain applications-based VoIP services. Such services are not subject to the consumer protection provisions in the USD (e.g. access to emergency services, caller identification, contractual protections, etc.), and to the extent that they are increasingly used interchangeably with traditional (regulated) voice services, this can become an issue of concern.”⁴⁶

Efforts aimed at a wider contribution to emergency services have already been made at standardisation level where, in response to a mandate from the European Commission, ETSI has developed architectures for providing location information for emergency calls, covering fixed, mobile, VoIP and OTTs. This architecture includes an option whereby mobile operators may transfer location information to the OTT players, thus paving the way to a greater number of players being technically able to provide emergency services. The pan-European in-vehicle emergency call service, e-Call, defined under the e-Safety initiative of the European Commission, is based on standards that are open to OTT providers.

⁴⁵ April 2014 : European Court of Justice judgment in joined Cases C-293/12 and C-594/12.

⁴⁶ <http://www.europarl.europa.eu/document/activities/cont/201306/20130617ATT67940/20130617ATT67940EN.pdf>

Introducing emergency services obligations for “relevant” digital services, provided by telecom operators or by OTT providers based on the infrastructure of telecom operators, would boost the integration of emergency services into OTT applications. Such an extension would be of benefit individuals with a broader and more advanced offer for successful emergency intervention, such as real-time video coupled with localisation tracking, and to telecoms operators that could share the costs of the deployment and operation of, for example, their local call identifier platforms.

Interoperability

Inflexible and systemic interoperability is a very prescriptive and demanding requirement that involves the coordination of large organisations and that has been proven to seriously hinder innovation if applied, from the beginning, to innovative digital services. Therefore, such a systematic and prescriptive approach to interoperability is not suitable for digital services in general.

Regulating interoperability for specific digital services should aim at ensuring a “collective interoperability objective”. For example, this “collective interoperability objective”, applied to the communication digital services market, would mean that regulators should not intervene unless the market cannot ensure that each individual is joinable on a competitive basis. Today, for example, customers benefit from such a large offer of communication applets on their smartphone that they can reach all the communities they want. Even if not fully interoperable when analysed one by one, communication applets provide a de facto capability to meet collective interoperability obligations.

Regulators should intervene only in case dominant players, because of the so-called “network effect”⁴⁷, would be able to render the market non-interoperable for their competitors and leverage disproportionate value from other players when asked to provide interoperability.

Portability

Portability of digital data is an obligation that has been introduced into the General Data Protection Regulation proposal for personal data in order to ensure that individuals do not suffer from the so-called “lock in effect”. As observed by both ETNO and GSMA, such an obligation has no place in a text aimed at ensuring personal data protection and it would be more meaningful to include it in the Digital Service Law.

Building upon the principle of the telephone number portability obligation in the Universal Service Directive, a new horizontal data portability obligation – including contacts, personal data, cloud content, etc. - should aim at allowing customers to switch provider with minimum trouble. Such an obligation could be designed in such a way that it would apply only to “relevant” digital services to preserve innovation.

⁴⁷ The ‘Network effect’ may allow the entity which has a large network to keep its competitors out of the market, because the value of the service to its users increases with the number of other users.

2.2.2 Review of service regulations in the Telecom Framework

This section assesses the impact of replacing the Electronic Communication Services (ECS) definition with the Internet Access Services (IAS) definition in the current Telecom Package set of five directives adopted in 2002 and reviewed in 2009⁴⁸.

The proposed change of definitions would not generate substantial modifications in the Access Directive, which mainly deals with Electronic Communications Networks (ECN). The wording of the recitals introducing in particular the Framework and the Universal Service Directives makes it clear that when the framework was introduced, public telephone service was the main service to be delivered over ECN. In this respect, reality has changed and the texts should be updated accordingly: *public telephone service* should be replaced by (public) IAS, which is becoming the main service delivered over ECN.

Recitals and articles of the Universal Directive specifically referring to the provision of public telephone service, to payphones and to directory services would, in principle, become irrelevant and fall outside the framework scope if IAS replace ECS, while still relevant obligations would be part of the new horizontal Digital Services Law proposed in the previous section. Other provisions concerning universal service obligations, such as coverage and affordability, or consumer protection in general, would find new and modernised significance when applied to IAS.

There are a majority of occurrences where the current expression “electronic communication networks and services” can be directly substituted by the expression “electronic communication networks and internet access services” and remain fully meaningful and relevant.

Spectrum

In the current directives, namely the Framework and Authorisation Directives, licences for spectrum are allocated to ECS. As only ECN providers have practical use of spectrum and may be actually liable for the quality and coverage obligations attached to spectrum licences, it would appear logical in the future framework to attach spectrum licences to ECN, in line with the service and technical neutrality provision of the 2009 revision of the Telecom Package.

Numbers

The current purpose of numbers from the numbering plan is to serve for the provision of ECS. However, this purpose could be redefined to cover their use for the provision of digital services rendered over ECN. A system of legal protection, possibly based on the IPR regime to protect the numbering format in use, should be set up to enable the national regulatory authorities to stop any abuse of irregular usage of numbers from the numbering plan whoever uses them, and be conducive

⁴⁸ The complete Telecom Package: ec.europa.eu/digital-agenda/en/telecoms-rules. The directives in the Telecom Package: Framework: ec.europa.eu/digital-agenda/sites/digital-agenda/files/140framework_5.pdf; Access: ec.europa.eu/digital-agenda/sites/digital-agenda/files/140access_1.pdf; Authorisation: ec.europa.eu/digital-agenda/sites/digital-agenda/files/140authorisation_2.pdf; Universal Service: ec.europa.eu/digital-agenda/sites/digital-agenda/files/Directive%202002%2022%20EC_0.pdf; E-Privacy: ec.europa.eu/digital-agenda/sites/digital-agenda/files/24eprivacy_2.pdf

to the enforcement of numbers related regulation. The corresponding adaptations would concern the directives framework, authorisation and universal service.

Privacy

As highlighted by the ETNO and GSMA contributions to the General Data Protection Regulation debate, the “lex specialis” for telecommunications operators, namely the e-Privacy Directive, may have been justified in the past, but today it makes little sense to single out one particular sector when there is such a broad range of online service companies collecting and processing large volumes of personal data. Moreover, the co-existence of the e-Privacy Directive and the proposed General Data Protection Regulation would be incompatible with technology and service neutrality and, more importantly, facing dual compliance regimes would be confusing for both consumers and telecoms operators.

The final text of the General Data Protection Regulation should anticipate the deletion of overlapping obligations for the telecoms sector and the next revision of the Telecom Package should delete the e-Privacy Directive.

Interconnection & interoperability

Art. 5 of the Acces Directive establishes an interconnection and interoperability obligation for Electronic Communication Networks providers. In the same directive, Art. 4 obliges ECN providers to negotiate interconnectivity. These obligations would not change with our proposal, whereby both IAS and Electronic Communication Networks would remain fully interconnected and interoperable.

In particular, although voice services (POTS) and SMS/MMS services would become digital services, the infrastructure that provides these services would remain an ECN regulated by the Telecom Package and subject to interconnection and interoperability obligations.

Traditional voice and SMS/MMS text messaging

Traditional voice and SMS/MMS messaging are today fully competitive. As observed in [PEITZ & All.] “consumers may switch to OTT services if they experience a price increase for traditional voice services”. Waiting for the application of the recently published Recommendation on Relevant Markets, which removes ex-ante specific obligations for traditional voice services, NRAs should adopt a wider definition of the relevant markets by adopting the principle that two products should be included in the same market if the offer is substitutable, whatever the technology used to provide the service.

Universal Service

Universal service in the current Telecom Package ensures that basic fixed line services are available at an affordable price to all citizen-customers across the EU, a policy target that has been widely achieved as observed by the European Commission itself. Adding this objective of coverage and affordability towards IAS would be fully in line with the current challenges stakes for consumers and businesses.

Other obligations concerning telephony, directories, etc.. are already on the way to being suppressed. Provisions for the disabled would apply to IAS and could also be included in the new cross-sector digital law presented in the previous section.

Net neutrality

Provisions of the Universal Service Directive concerning Internet Access Services should be maintained in the Telecom Package to ensure openness, transparency and the quality of retail internet access services.

Competition in retail Internet Access Services

IAS competition in the retail market would be guaranteed because IAS would be the focus of revised telecoms regulations and because relevant Electronic Communication Networks regulations would continue to apply.

Integrated or specialised Services

In the retail market, Electronic Communication Services providers provide integrated services alongside IAS. These services are also called specialised services in the net neutrality debate. In our proposal, these integrated services would belong to the same digital service category as the digital services provided by OTT providers and would be subject to the same horizontal digital law described in the previous section.

Fair competition between integrated services and OTT services would be guaranteed:

- because both kinds of services would belong to the same regulatory category and would be subject to the same rules,
- because IAS regulations (in addition to competition between IAS providers) prevent the risk of a foreclosure strategy being used by IAS providers against OTT services.

Competition between the integrated service model and the OTT model would therefore be based purely on merit rather than regulatory bias.

Moreover, fair competition between integrated services providers would be guaranteed by Electronic Communication Network regulations.

Roaming

Retail Internet Access Services would remain in the scope of the regulatory framework and so European roaming regulations would continue to apply to retail data services. Roaming regulations for wholesale voice, SMS and data offers include obligations that derive from networks and would therefore remain applicable (because of the numbering plan). Retail roaming voice and SMS would no longer be covered by the Roaming Regulations. This aspect could be dealt with simply by deleting the regulation because competition between digital services', based on data services which remain regulated by the Data Roaming regulations, is considered sufficient, or because of generally prohibiting premium rates based on the location of consumption (subject to fair use conditions) in the horizontal digital law described in the previous section.

Conclusion

Digital services have become so popular that policy intervention is needed to allow consumers to continue to take advantage of the broad offer within a more transparent and secure legal framework, especially concerning new business models and privacy. The main drivers for policy intervention derive from the current situation in the digital service market.

Reform must start with a reorganisation of the regulatory categories of services under the principle that similar services should be ruled on equally under the same classification. Such a reorganisation of categories has to be completed by the re-configuration of the associated obligations.

These proposals for reform would address the problem of the unclear, inefficient and unfair regulation of digital services as identified in the market, and would have a considerable positive impact on the European digital market, while nevertheless maintaining the basis of the current telecoms business.

This paper explores the main consequences of the proposed reforms, but does not aim to comprehensively and exhaustively address all the detailed issues relating to the regulatory changes we propose. The main purpose here is to begin to describe what should be the architecture of the future regulation of digital services and how the digital market would look once a level regulatory playing field has been achieved.

Further studies should also be carried out, particularly on the role regulation will have concerning non-telecoms players that provide internet flow control, which could be called "OTT IAS". By handling and encrypting all internet flows used by a customer through a proxy browser or a proxy Operating System, these providers are able to analyse, prioritise, filter, redirect, differentiate between quality of service and, finally, fully control access by the customer to any other internet services and content providers. Regulation should also find a way to ensure that security, privacy, transparency, non-discrimination and all other relevant concerns will be respected.

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