

**TELECOM ITALIA comments on  
the Federal Communications Commission  
NOTICE OF PROPOSED RULEMAKING  
ON HOW BEST TO PROTECT AND PROMOTE  
THE OPEN INTERNET  
FCC 14-61**

**July 15<sup>th</sup>, 2014**

## Introduction

Telecom Italia welcomes the opportunity to contribute to the debate on the Open Internet which is currently underway not only in the United States but also in the European Union.

Indeed, new draft rules on Net Neutrality have been included in the EU Commission's proposal for a Connected Continent Regulation of September, 11, 2013. They were particularly controversial in the run up to the European Parliament's vote and still constitute one of the areas of major concern to regulators, operators and public opinion.

We believe that, given the global nature and dimension of Internet and of the relevant marketplace, a convergence or at least an approximation of the approaches on both sides of the Atlantic, in particular within the context of the Transatlantic Trade and Investment Partnership, should be a key goal, albeit indisputably a great challenge, of policy makers in this particular moment of definition/re-definition of the public policies on such an important topic.. A global approach on this subject would allow the establishment of the needed level playing field for players established on both sides of the Atlantic and the balanced and coherent conditions necessary to boost EU-US trade.

At the outset, Telecom Italia firmly believes that the consumer's right to access to any lawful content/application/service of their choice available on the networks is to be preserved and nurtured. Such principles were acknowledged by the EU legislator and integrated in the EU acquis with the 2009 revision of the Universal Service directive.

At the same time, however, it is necessary to avoid an over prescriptive regulation in this field. Indeed, the Internet is an extremely complex and dynamic ecosystem. Developments in this area are uncertain and extremely difficult to predict. Law makers should therefore adopt a forward-looking approach and carefully consider the risks of a rigid legislation which may deliver the opposite of the intended effects, stifling investment and innovation and potentially jeopardizing job growth that depends on such investments.

According to TI, any new regulation should:

- clearly set the consumers' right to freely access any service/content of their choice and, on the other side, grant operators the possibility to differentiate the traffic in

order to offer services with different levels of quality and suitable for the evolving users needs

- not introduce detailed rules, providing for the consumers' general rights and leaving the matter to more flexible forms of regulation. In this regard, TI appreciates FCC approach to address reasonable network management as well as specialized services.

Furthermore, all players of the value chain, which is long and complex (network operators, software developer, content providers, etc.), should be empowered to compete and should have an equal opportunity to innovate.

Telecom Italia's would like to focus on the following main areas:

### **The Net Neutrality/Open Internet principle**

The focus of the Open Internet principle should be the consumers, their ability to access and distribute information or run applications and services of their choice, ensuring they derive maximum benefit in terms of choice, price and quality, without interfering with the technical and operational solutions implemented by the operators managing the communications networks<sup>1</sup>.

In the European debate on Net Neutrality, Regulators are envisaging very strict rules excessively focusing on what network Operators can and cannot do within their networks without taking into full consideration the impacts of possible restrictions on the actual benefits that the customers derive from the availability of new differentiated quality

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<sup>1</sup> As reported on the FCC website "The principle of the Open Internet is sometimes referred to as "net neutrality." Under this principle, consumers can make their own choices about what applications and services to use and are free to decide what lawful content they want to access, create, or share with others. This openness promotes competition and enables investment and innovation. The Open Internet also makes it possible for anyone, anywhere to easily launch innovative applications and services, revolutionizing the way people communicate, participate, create, and do business—think of email, blogs, voice and video conferencing, streaming video, and online shopping".

services offered by Operators, without any discrimination, in compliance with the evolving application and content delivery requirements.

In particular, it should be considered that services are not all *the same*, and therefore the conveyed traffic too has to be managed according to the performance requirements needed in order to make it actually enjoyable by customers. Hence, enabling customers to choose between a wide range of differentiated and innovative offers is likewise a priority.

Obstacles to the offers' diversification would have strongly negative impacts on consumers' choice, in particular on customers who would not see fulfilled their requirements for advanced quality services (such as high-resolution video, tele-medicine, e-education). Moreover, without proper actions, the ongoing growth of traffic would result in a general decline of quality for all users;

In addition, any restriction on the possibility to diversify services will negatively impact on:

- operators who would be deterred from network developments and ongoing innovation which are in the interest of all players. The offers' differentiation, facilitating business models which allow for quality monetisation, make investments on network development economically viable;
- other players (such as Content and Application providers, OTTs) who need to be reached by clients with a suitable quality and would see some contents and applications loose attractiveness. Furthermore, they need to be able to offer their own services/applications/contents to the highest possible percentage of users.
- The entire ecosystem, threatening its sustainable development.

A non-differentiated treatment of all traffic and the impossibility to differentiate quality levels according to the actual services' features would not act in a neutral way, since the provision of some services (such as massive data download) would be unfairly privileged to the detriment of others (such as time-sensitive services, for example video-streaming, gaming, videoconference, mobile healthcare, etc.) independently of the consumer choice. A non-optimal allocation of network resources would come about, with the paradoxical result of a lower quality-of-service average for all final customers.

Therefore, those services requiring high quality levels such as, for ex., VPNs for business users, IP-TV, tele-presence or tele-medicine would be put at great risk, with a significant impact on innovation and on the ability to choose by customers. This is, unless we assume that operators over-invest in order to allow the management of every kind of service and every kind of quality level under a best effort approach, with conceivable consequences in terms of cost and price sustainability by customers.

### **Non discrimination and Commercially Reasonable Practices**

Non-discrimination is a principle strongly fostered by both the European and the Italian regulation. In particular, in EU legislation, “non discrimination” implies the application by the operators of “equivalent conditions in equivalent circumstances”.

The non discrimination principle does not therefore preclude the possibility for Internet access service providers to offer different prices for services provided with different quality levels, both at retail and at wholesale level.

Hence, offering a different service at different prices cannot be considered unlawfully discriminatory.

The availability of differentiated services offered by operators on a no discriminatory basis allow the user to widen its choice among different offers and to enjoy innovative services and applications requiring higher performances at application layer.

Under your new proposed rules, broadband providers would be prohibited from engaging in “commercially unreasonable” practices (as different from the “unreasonable discrimination” set by the 2010 Open Internet Order). What constitutes such a practice would be determined on a case-by-case basis, relying on a “totality of the circumstances” evaluation. To this purpose a set of factors to guide the application of a General Legal Standard are proposed.<sup>2</sup>

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<sup>2</sup> FCC Notice of proposed rulemaking, par 111: “Our proposed approach contains three essential elements: (1) an enforceable **legal standard of conduct** barring broadband provider practices that threaten to undermine Internet openness, providing certainty to network providers, end users, and edge providers alike, (2) **clearly established factors** that give additional guidance on the kind of conduct that is likely to violate the enforceable legal standard, and (3)

Telecom Italia uphold such an approach to the extent it moves in the direction of a flexible and dynamic enforcement. Nevertheless, we point out the need to avoid that the criteria used to carry out such a case-by-case assessment are too rigid and prescriptive because otherwise that would imply a de facto reintroduction of the unreasonable discrimination rule, vacated by the DC Circuit. Moreover the principles of reasonability should not be a static one, but should evolve dynamically on the basis of the increasing market competitiveness, in accordance both with the future technological evolution and with the service innovation.

### **Reasonable Network Management and Solutions for the Quality of Experience**

The use by operators of both Network Management techniques and solutions for the improvement of the user' quality of experience is not against Open Internet. In a context characterised by a tremendous growth in online voice and video services, as highlighted by the FCC itself, these mechanisms allow the full openness of the network and the appropriate users' quality of experience.

Traffic management measures are being used for the proper functioning of the networks and has always been essential for the efficient delivery of services: without such measures networks cannot work properly.

This is even truer as the continuous growth in the Internet traffic creates a challenge for network operators who have finite capacity.

As reported by Cisco, overall, IP traffic will grow at a compound annual growth rate (CAGR) of 21 percent from 2013 to 2018.”

In a context characterized by a trend of significant and continuous traffic growth, traffic management techniques are essential to dispose the increasing volume of traffic without incurring in a degradation of services to the detriment of all end-users.

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encouragement of individualized negotiation and, if necessary, a mechanism to allow the Commission to evaluate challenged practices on a **case-by-case basis**, thereby providing flexibility in assessing whether a particular practice comports with the legal standard.”

Traffic management is a vital means to provide efficient, effective and safe internet services also in case of critical situations caused by e.g. serious network faults, hacker attacks, environment disasters..

Traffic management measures operate at network layer and are necessary in particular to:

- preserve the integrity and security of the network, services provided via this network, and the end-users' devices
- protect the network from overload conditions: preventing congestion is to be considered an integral part of the network's management and cannot be limited to temporary and exceptional situations but, more properly, it should be aimed at preventing these situations and eventually at managing them, preserving the integrity an of traffic and services .<sup>3</sup>

Traffic management techniques are and must be implemented on a non discriminatory basis.

The solutions for the quality of experience (QoE) act above the network layer and are necessary for services requiring high application throughput and low download time (such as 4K video streaming, interactive gaming, e-health and e-education services).

The technical solutions for QoE improvement (based on Content Delivery Networks, Transparent Caching, Web Acceleration, Application Delivery, Front End Optimization, etc.) aim at improving the applications performance (increasing the application throughput and reducing the download time).

Content and Application Providers started about fifteen years ago to use these platforms in the international networks. It is essential that also domestic fixed/mobile network operators can deploy and use QoE platforms in order to satisfy the increasing demand for

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<sup>3</sup> Preventing congestion (load balancing of flows in the network to improve the overall resource usage while avoiding local traffic bottlenecks when possible; admission control prior to the admittance of new flows in order to avoid that running services suffer from a lack of bandwidth if new flows arrive while the remaining available physical or logical bandwidth are not sufficient) and optimising traffic management when congestion occurs (treat flows having a higher priority prior to other flows; re-route flows to reduce local congestion, etc.) are part of the traffic management tools applied at all time on a network.

quality improvement (such as 4K video streaming, interactive gaming, e-health and e-education services) and develop new innovative offers.

## Specialized services

Telecom Italia Shares the view that specialized services should be out of the scope of regulation<sup>4</sup> and should be fully managed by operators in compliance with the competition rules.

Indeed, the specialized service concept correctly responds to the economic logic according to which incremental investments, incurred to enable the provision of incremental services, should be remunerated by the service providers. A fair return on the investments could be raised by agreements with OTT/content providers requiring services with certain level of performance. Otherwise, the only way that would reward operators for incremental investments would be to pass them on all customers that access the Internet, with the result of charging innovative services even to customers who are not interested in their use.

## Transparency

Telecom Italia believes that the application of a transparency principle is of the utmost importance for a solid and large scale development of the broadband market around the world, in that transparency and disclosure of clear and understandable information allow parties throughout the broadband value chain (users, content and applications providers, etc.) to be aware of the features of the broadband services they use.

Transparency allows users to make well informed choices throughout the different stages of the commercial relationship and select the offers that best suit their needs.

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<sup>4</sup> FCC Notice of proposed rulemaking, par 60. Specialized Services: "In the *Open Internet Order* [ ] the Commission stated that it would monitor these services, but that its rules would "not prevent broadband providers from offering specialized services such as facilities-based VoIP." We tentatively conclude that **we should maintain this approach** [ ]"

Consumers should be able to act on this information by easily switching providers (both Operators and OTTs). Removal of barriers to switching is of the utmost importance and should be a key objective for policy makers, as to ensure that the information that has been transparently communicated by network operators to end users becomes a useful instrument in their hands.

On the other hand, the concept of “tailored disclosure” enunciated by the Commission<sup>5</sup> is key. It is indeed also important to strike a right balance, according to an appropriate cost-benefits analysis, between the efforts required from operators to provide the information and the level of information, useful and understandable, needed by the users, avoiding those disclosure, reporting requirements and certifications that, while would impose excessive burdens and real cost to operators, may not even be meaningful to end users.

Telecom Italia would like to point out that, in the EU, the revision of the regulatory framework for electronic communications network and services adopted in 2009 led to the adoption of a number of provisions that deal with the transparency issue. In particular, the Citizens’ Rights directive (art. 20 and whereas 24)<sup>6</sup> provides that users must be duly informed of conditions that may limit they ability to access or use services and applications, of minimum quality service levels as well as of procedures put in place in order to “shape the traffic so as to avoid filling or overfilling a network link and on how those procedures could impact on service quality”.

In addition, we believe that it is important to look at transparency across the entire Internet value chain. It is indeed important that all services offered to end users are transparent and open about the characteristics of offered services and the use of personal data; this is

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<sup>5</sup> FCC Notice of proposed rulemaking, par 68.

<sup>6</sup> Art. 20, Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services: *The contract shall specify in a clear, comprehensive and easily accessible form at least:*

- information on any other conditions limiting access to and/or use of services and applications, where such conditions are permitted under national law in accordance with Community law; (...)*
- the minimum service quality levels offered, namely the time for the initial connection and, where appropriate, other quality of service parameters, as defined by the national regulatory authorities;(...)*
- information on any procedures put in place by the undertaking to measure and shape traffic so as to avoid filling or overfilling a network link, and information on how those procedures could impact on service quality;*
- any restrictions imposed by the provider on the use of terminal equipment supplied;*

*Whereas 24, National regulatory authorities should be able to oblige providers to disseminate this standardized information to all their customers in a manner deemed appropriate by the national regulatory authorities. When required by Member States, the information should also be included in contracts. Dissemination of such information should however not impose an excessive burden on undertakings. Member States should require this dissemination by the means used by undertakings in communications with subscribers made in the ordinary course of business.*

valid for services directly provided by the Operators as well as services supplied by third parties on the Operators networks.

## **Investments and Innovation**

The Internet Ecosystem as we know is based on the innovation and investments that have followed one another during the years all over the world for each of its components (terminals, servers, applications and communication networks).

The development of the Internet is still driven by innovation and investments and the possible breach of this equilibrium would strongly impact the whole ecosystem.

Internet, being a global communication network, is in no way different from all other global fixed and mobile communication networks: it requires investments that need remuneration. The public policy on Open Internet needs not to hinder investment, differentiation and innovation. A rigid regulatory approach would stifle innovation and investment by the private sector and provide no help to consumers.

As for any other business, it should be possible for operators to optimize the usage of the available resources (with the current network capacity), characterizing the delivery of contents according to the service features and differentiating the offers according to the content value and the end users needs.

## **Competition**

Strict Net Neutrality rules risk to distort competition over the Internet value chain, bringing benefits to some actors to the detriment of others. Indeed, a severe principle of non traffic differentiation would reduce network operators role to mere “dump pipe” and would likely deprive them of the possibility to bring value to the distribution of OTT content/services. Moreover, without the possibility to negotiate commercial agreements with Over the Top players, Telco operators would find it hard to sustain the investments necessary to support the most innovative - and demanding for the network – services, with the end result of discouraging such investments, preventing the provision of services suited to the evolving

needs, harming OTT business and forcing operators to recover the additional costs from end users (higher internet access fees).

In this way the burden of these services would be borne indiscriminately by all customers, instead of only by those who actually use them; leading to a sub-optimization in terms of collective well-being, as some customers would pay the service less than what they are ready to pay, while others would pay it more than what they are willing to pay.

Telecom Italia maintains that the regulator's intervention should be limited to setting general rules to protect customers right to access content and services of their choice while being neutral with regard to the relationships between the different actors of the value chain, in order not to frustrate a collaborative approach that would result in an overall market value increase (OTTs need to deliver their content/services to end users; network Operators need content/services to appraise their networks).

## **Conclusions**

The "Internet Economy" is characterized by a strong dynamicity and the scenario is continually evolving, especially thanks to a growing technological and service innovation. It is sufficient to consider the mobile connectivity market before and after the appearance of smartphones and tablets. In such a dynamic context, we would like to highlight the following:

1. more flexible tools, adjustable over time, that allow the evaluation of single operators' behaviour in relation to the contractually agreed conditions;
2. regulatory interventions of broad reach should be carefully evaluated and a cost/benefit analysis of possible alternative solutions should be carried out before taking any action;
3. in any case, any regulation should:
  - i. set forth consumer's right to freely access any lawful content/application/service available on the networks;

- ii. grant operators the possibility to offer their services with different levels of quality, in order to allow the supply of specific content, applications and services, based on the implementation of network management techniques and specific network architectures that ensure the necessary quality of experience to the end user;
- iii. Ensure the possibility for operators to assure for all services the appropriate level of quality.

With regard to revisiting the current classification of broadband services as “information services”, Telecom Italia highlights that such decision would probably impact the debate about the Open Internet regulation at worldwide level. As above widely discussed, we consider that a light touch approach to the issue is the best way to support the network investments in broadband networks, maintaining a right balance with the rights of the customers. The development of the US broadband networks and the increasing number of innovative services available for US citizens confirm that a strict regulation is not necessary. On the contrary, regulating broadband services as a public utility under Title II will prevent operators from an efficient management of their networks and from the provision of any kind of innovative service based on an enhanced end user quality level. That would represent a dangerous international precedent driving toward a very restrictive approach to the Open Internet also in the European Union.