Telefónica comments to the *Discussion points and initial policy directions on Internet and network neutrality* submitted for public consultation by ARCEP

Introduction

Telefónica (TEF) welcomes the opportunity to be involved in the public consultation on "P*olicy directions on Internet and Network Neutrality*" (NN) launched by the French Electronic Communications and Postal Regulatory Authority, ARCEP, on account of the potential impact that any form of NN regulation could have.

TEF believes that ARCEP public consultation on these issues is a very important initiative that will undoubtedly have a major influence on the evolution of Net Neutrality (NN) in Europe, so although TEF does not have a significant presence in France has decided to take ARCEP's invitation to express their views on the issues in consultation.

TEF fully agrees on the relevance that Electronic Communications Services and the Internet have. They are becoming an increasingly prominent part of both the economic and social landscape. Ensuring the future sustainability of Electronic Communications Networks and the Internet will therefore be one of the central issues over the next years.

I - TELEFONICA´S COMMENTS ON SECTION 1: GENERAL VIEW OF THE DEBATE

The NN debates

TEF believe the NN debate should become less polarised and much more focused on how to ensure the future sustainability of Internet

There has been much confusion about NN from the outset and nowadays many people still consider that the NN debate is about defending civil and individual rights[1].

[1] *"Net neutrality is a subject that stirs emotions. Everyone has an opinion and, so far, this has not led to an agreement on what net neutrality actually means.....…"Commissioner Neelie Kroes. Speech at ARCEP Conference. Paris, April 13, 2010*

TEF considers that it is time to release the NN debate from emotions and search for sustainable solutions.

The NN debate deals with users' right to a free and non-discriminatory access to content, services or applications available on the open Internet. However, the core of the NN debate deals **with the business models and the long-term sustainability of the Internet. The major portion of network investments and costs are being made and being borne by network operators and financed by end users** despite the obvious fact that Internet content and applications providers enjoy an immediate benefit from them too.

So far the debate has been focused on access operators and ISPs and the possible incentives for discriminating against Internet applications, contents and providers which may challenge their business in favour of their own interests. However this simplistic approach hides other potential bottlenecks that are occurring nowadays in the Internet ecosystem (for instance, in online advertising and search engine markets).

Accordingly, NN is really a debate on business models, and eventually, a debate on network management. New uses require smarter network management to be able to cope with a wide range of traffic requirements, some of which are very demanding. Nowadays, the debate is moving towards a rapprochement between operators and Internet providers for the purpose of developing new business models on the Internet, based on commercial agreements.

TEF agrees with the European Union's policy stance in terms of not regulating NN because it considers that there are sufficient mechanisms in place to counterbalance and address anti-competitive practices and to guarantee consumer rights.

Currently, it has not been demonstrated that there exists any major market failure that would justify the establishment of new ex ante regulation on the Internet. Regulating the Internet would imply the regulation of a complex system in continuous evolution and changing characteristics in order to solve ill-defined or hypothetical problems; therefore, the Internet's development and service innovation would be put at risk by regulation.

For example, NN principles should not hinder the leadership of mobile operators to drive the challenging transition from current business model centred on voice services towards new business models centred on all IP data communications.

Therefore TEF believes that authorities have to preserve the appropriate degree of freedom for network and service operators to drive the development of broadband access to the Internet. Authorities are expected to prioritize a legal security framework that encourages investment, innovation and a sustainable development of the Internet.

Telefónica firmly believes that establishing regulation at this moment could hinder the development of the Internet and hold back innovation and the deployment of new communications infrastructures.

The growing competition in Internet access through different platforms (wireline or wireless) will further reduce the risk of anti-competitive behaviour and the introduction of regulation could indeed hinder the development of new Internet access platforms.

Internet access providers are constantly seeing the bandwidth requirements of their customers grow due to new applications. The investments required to address these increases in traffic are substantial. **Market players need to have the freedom and flexibility to develop new business models that favour innovative services, allow for a monetization of increases in traffic and enable the sustainable development of networks.**

Open Internet and the need to regulate the NN

TEF is strongly convinced of the need to keep the open nature of the public Internet. In the future, best effort applications will continue coexisting with managed services.

TEF fully agrees on the importance and necessity of maintaining an open Internet. This openness has permitted its development and innovation to the present although it could be compromised by future restrictive regulation.

In spite of the fact that **a general consensus exists regarding the social and economic importance of maintaining the open nature of the Internet, major differences arise amongst Internet stakeholders with regard to the way to achieving this.**

The defenders of NN regulation have advocated to transform users' rights into regulated obligations imposed on Internet access operators and ISPs, by demanding that operators give equal treatment to the traffic of any content, applications and platforms on the Internet.

For TEF the possibilities of preserving the openness of the Internet are essentially related to the degree of competition in the Internet access market and to the avoidance of abuses of dominant position in other stages of the value chain, guaranteeing therefore the freedom of choice of end users and competition in the market.

In any case, TEF questions whether Internet regulation can provide a greater degree of predictability. Regulation will have a very difficult challenge in responding to the constantly changing character of the Internet. Regulation could create new barriers to innovation.

Therefore, TEF is not in favour to predefine and even regulate features and capabilities of one specific service such as the access to the Internet, as seems

to be proposed by ARCEP[2]. General principles and the application of competition law in the event of any anti-competitive practices or a lack of transparency are more appropriate than regulation to preserve the openness of the Internet.

Currently in Europe there is a consensus that the regulatory and competition framework allows operators:

- to manage the networks to ensure their integrity, efficient use and quality
- to differentiate Internet access services in order to adapt them to users' needs and to applications requirements

The increasing growth and number of players across the Internet value chain risks creating new positions of dominance that might compromise the future of the open Internet, regardless of the activities of Internet access operators. This trend therefore calls for a balanced treatment of market players across the Internet value chain.

NN and the sustainability of Internet

TEF believe the current Internet economic model is not sustainable mainly due to the proliferation of video services

The main challenge that the telecom sector must face in the process of Internet development is the decoupling between operators' revenues and the traffic that crosses over the networks. While, until now, the technological evolution, together with improvements in efficiency implemented by the operators have allowed the continuous traffic increases to be absorbed without any increase in end-user prices, this situation will not be sustainable in the future.

Revenues do not keep pace with such traffic increases: **the main challenge as an industry is to achieve the right balance between investment and revenue generation**. Current pricing models based mainly on flat rates encourage exponential traffic growth and the increase of network costs which can not be only supported by technology innovation.

Problems due to congestion on the networks resulting from an exponential increase in traffic have already occurred on mobile networks as a result of the new patterns of use that the Smartphones have introduced.

The trends and projections in Internet traffic evolution are showing an inflection point in which video traffic is giving rise to explosive growth that threatens the capacity of the current networks.

[2] ARCEP consultation doc., page 15: *To ensure a dynamic and lasting state of equilibrium for this ecosystem, the Authority believes it necessary to define an Internet access area that can be clearly identified by users, where neutrality is the rule and where mechanisms can be implemented to guarantee this neutrality, which is a necessary prerequisite to being able to speak legitimately of "Internet access"*

The number of users of telecomm services has had an outstanding increase since year 2000 and network traffic has increased because of new users and services (IP traffic has doubled from 2000 to 2008); infrastructure improvement has been accomplished to meet this high growth. However network traffic is going to increase even more – from 2000 to 2013 it will increase 11-fold - and it will threaten the networks' capacity.

The Internet network is the platform supporting the two-sided market that connects users with content and service providers. Under the current configuration of this two-sided market, end-users almost exclusively support all network costs. Content and service providers hardly contribute to financing network costs.

At the same time, the business models of Internet players, based mainly on advertising, provide an important incentive for the increase in traffic. The greater the audience is, the greater the number of potential advertising customers.

This situation sketches a panorama in which none of the players involved in the two-sided Internet market has sufficient incentive to rationalize his behaviour with regard to traffic. This scenario, in turn, leads to the unsustainability of the current Internet economic model.

The solution could involve a redistribution of the impact of network costs between the various players involved and promotes a new balanced scenario, thus stimulating investment, efficiency in generating traffic and fostering the development of new services.

II - TELEFONICA´S COMMENTS ON SECTION 2: NEUTRALITY OF INTERNET ACCESS NETWORKS

Open and neutral access (1st direction)

TEF shares the view that customers should be able to access any content on the Internet, and run any application and device that they choose.

TEF agrees that consumers should be able to access any content on the Internet, and run any application and device that they choose. This should not preclude appropriate charges to access those services. This access should also happen without limiting the ability of fixed and mobile network operators to manage congestion and capacity constraints on a secure network, or the market's ability to experiment with new ways to organize and provide services

The Internet is a network of networks, where traffic is exchanged in "thousands of handshakes" that take place by mutual agreement among the more than twenty thousand networks that comprise the Net. It is also a global marketplace for network

resources and capabilities. As this market handles ever-increasing levels of traffic, the exercise of effective network management consists, first and foremost, of cooperative efforts between carriers in the value chain to deal with challenges such as spam and congestion

Supervising traffic management mechanisms (2nd direction)

TEF believes it is imperative to use traffic management mechanisms but in a transparent way. By unduly restricting this possibility, innovation would be jeopardised

TEF agrees that it would be difficult and probably not relevant, to specify in advance which traffic management methods are “acceptable”, and even less so to exclude all adjustments that ISPs make to data streams. But TEF disagrees that traffic management measures implemented for Internet access have the only target to achieve an adequate quality of service. TEF also disagrees that traffic management is aimed only to avoid congestion when a danger has been proven.

TEF considers that network management should focus on obtaining the best from the bandwidth available, being fair with users, and providing better quality of service to applications that require it.

A proper management of networks, treating differently traffic with particular characteristics and quality requirements, is for TEF the way to prevent the congestion of the network. Traffic management must be done with transparency, without undue discrimination, ensuring an efficient and responsible use of network resources and guaranteeing the customers access to every available network resources.

Even more, traffic management and service differentiation are needed to accelerate the virtual circle of new investments and new services.

The consensus in network management and transparency leaves the non-discrimination principle as the main point to be resolved. In our opinion, the non-discrimination principle should preserve the access to any content, application or service but can not be the excuse for forbidding any kind of differentiation: similar situations should be managed in the same way but not all situations should be managed in the same manner.

Proposals to limit quality of service differentiation or mandate non-discriminatory treatment of network traffic may have the unintended consequence of harming consumers and curtailing innovation and investment in Internet-based services.

Non-discrimination principle should not prevent traffic management techniques to provide to the end user different quality of service of the Internet access to maximize the User`s Experience. The access to any content, service or application must be

assured, but a competitive environment requires trade agreements to suit the different needs of customers.

Moreover, the strategy to guarantee the non-discrimination principle will determine the speed of the Internet's development. A static exante approach (i.e ARCEP directions) based on the rigid application of the non discrimination principle would damage the long term sustainability of Internet ecosystem.

Situations of lack of transparency, discriminatory or blocking practices, have to be addressed and resolved on a case-by-case basis under specific, proved and justified complaints.

TEF agrees that it is necessary to adapt the traffic management criteria to the characteristics and needs of the broadband networks, fixed or mobile.

Quality of service level for "Internet access" (3rd direction)

TEF believes that at this stage it would not be wise to impose minimum QoS levels in best effort services bearing in mind current level of competition in the access market.

TEF agrees that a connection to the Internet must be provided with a sufficient and transparent quality of service (QoS) according to access service contracted by the user although TEF fears that the ARCEP approach goes beyond the new European Regulatory Framework[3]. Furthermore, before considering any QoS regulatory intervention, existing competition tools and consumer transparency options should be deeply explored.

In particular, **TEF sees no need to regulate QoS requirements since quality differentiation should be left to the market**. To encourage innovation, it is preferable to rely on self-regulation rather than on mandatory measures. In particular, the ability of operators to propose alternative charging mechanisms amongst those which customers may choose should be preserved and not be distorted by regulation.

The application of a regulation that sets minimum quality levels for services that depend on the Internet networks is a very complex issue. In particular of the many parameters involved, in some cases out of the operator control, that affect quality, and the fast evolution of services, applications and networks.

New innovative services can only be offered by operators and content providers if the access network operator provides QoS differentiation according to the class of service. The QoS differentiation will increase customer choice and will allow the development of innovative services that require innovative network features.

[3] Article 22(3) of the Universal Service Directive provides that 'in order to prevent the degradation of service and the hindering or slowing down of traffic over networks´.

In the mobile sector, to establish minimum QoS levels becomes very difficult due to the dynamism and the technological changes experienced in the last decade. New mobile applications could make use of a diversity of data and voice streams that require differentiated and specific QoS levels. Minimum QoS standards could jeopardise technological development and evolution of an especially vibrant industry. On the other hand, mobile services and related QoS levels are strongly dependant on the terminals and the number of clients served by each cell which is variable over time.

The ruling on minimal QoS requirements would provide broad powers to regulators. There is the danger that these powers could be used to set standards in IP networks which will be detrimental to the development of new business models and therefore making investments and innovations less attractive. Furthermore, it should also be borne in mind that each minimum quality obligation means de facto a guaranteed transmission quality.

The Internet represents a “best effort” network with no guarantee of service quality; such quality guarantees can become very costly and would ultimately lead to higher prices for network access to the detriment of consumers. In competitive markets regulators should not be dictating service levels or mandating access where customers can exercise choice.

Managed services (4th direction)

TEF believes that managed services might become the incentive for investing in networks and for innovation in services. By restricting this possibility innovation would be jeopardised

The NN issue in relation to managed services specifically deals with the bandwidth distribution between the Internet access service - with best effort quality of service - and managed services (i.e. telephony, Virtual Private Network, etc) – which are provided with a guaranteed quality of service.

TEF agrees on the importance of ensuring a balance between managed services offered by telecom operators with the services and applications offered on the Internet, particularly for sustaining a sufficient level of quality of service in a dynamic retail market which allows end user to have access to a wealth of innovative bundled services.

In this issue the key point is to keep decision-making capacity of end users, and avoid unnecessary regulation that imposes restrictions on the supply capacity

Monitoring the data interconnection market (5th direction)

TEF believes there is a need to look for a new sustainable and fairer model for Internet ecosystem. The possibility to establish a data interconnection fee is a possibility that is worth exploring

Since most of the Internet traffic flow is through interconnection, and given that the current interconnection model does not contribute in any way to supporting ISP network costs of asymmetric traffic, **the revision of the interconnection model is considered critical**. Neither transit fees nor peering are models that contribute in any way to pay induced ISP network costs. **Structurally unbalanced traffic (video vs. P2P) together with current interconnection model based on transit and peering is distorting ISP network cost allocation**.

To achieve a balance on the market in which the global level of end-user prices is not substantially different from the current one and, at the same time, to promote the development of the services that are provided over the Internet platform, an efficient price model on a two-sided market should allow players' payments to be aligned with the use they make of network resources.

Compensation of network costs is a fundamental principal that has governed the growth of the telecommunications business. The interconnection model is a critical lever for efficiency. **Interconnection payments have a major effect on the market due to their impact on recovering costs and incentives to investment and innovation as well as their impact on end-user prices and therefore, on demand.**

National and European regulation have to be coherent and consistent with a new model to allow the new Internet model to entirely develop and based on 3 principles:

- **Focus on users**: with the proposed model, users would not have to be the only ones to bear the costs of the network. In no way does the model limit customers' use or freedom.
- **Transparency and rationality**: interconnection on the Internet should be based on an efficient market mechanism that is open, transparent and rational and one that reflects the costs and conditions of supply and demand.
- **Cooperation of players**: telecommunications operators must become allies of service and content providers as well as facilitators of their business.

The access to networks and the use of network operators resources to offer Internet services and applications must be based on commercial agreements as a result of the commercial cooperation between agents; this cooperation will strengthen and balance the participation of Internet agents in different stages of the value chain, enhancing the recovery of investments, the development of innovation and the efficiency in the use of the network.

The result of such cooperation between agents includes, for example, the agreements between ASPs and network operators to distribute content through Content Delivery Networks.

In summary, TEF is in favour to promote a new more efficient and transparent Internet interconnection model to speed up the segmentation of network services based on QoS.

Increased transparency with respect to end users (6th direction)

TEF shares the view that transparency is a key prerequisite to build consumer trust on different business models and thus increase demand. Transparency requirements should not be exclusive for access players but for all players involved

For Telefónica the defence of end user rights in the NN debate takes preference. This debate should never lose its focus on the end user rights, i.e. to ensure access to any legal content and applications in line with the service conditions stipulated in the contract of the broadband access service to Internet.

The proactive implementation of the transparency principle carried out by the stakeholders' community and based on self-regulation is essential for achieving a neutral and open Internet. Moreover, the trust generated with users is the primary way of avoiding the need for any intervention by the regulator or the competition authorities.

TEF believes that our customers are the centre of our business and therefore it is in the interest of operators to ensure transparency in contractual relationships and communications with clients, clearly defining the service conditions (capacities, functionalities, restrictions, options, quality of service, etc.), and facilitating clients the understanding of their service characteristics in relation to similar offers on the market.

For this reason, Telefónica considers it to be of vital importance that the principle of transparency should take into account the following aspects:

1. The features of the Internet access service offered by the operator in terms of: speed, any restrictions in the volume of traffic/month, quality of service commitments; fair network management criteria to be undertaken by the network operator in the case of network congestion; and, criteria for action to be undertaken by the network operator that could imply any security or user privacy breaches.
2. The coexistence between telecommunication managed services and the Internet access service provided to the user by the access operator.

It is important to facilitate the comparability for the customer of Internet access services between the offers available in the market, in particular those offers that provide differentiated characteristics in features and prices.

III. TELEFONICA´S COMMENTS ON SECTION 3: OTHER DIMENSIONS OF NEUTRALITY

TEF shares ARCEP´s view that Internet is a complex ecosystem and attention should not only be focused on access providers. A level playing field is necessary to find the right balance amongst all market agents.

TEF agrees with ARCEP on the need to differentiate the discussion of issues directly related to Internet access services that are directly covered in the NN debate from other topics that are also affected by other dimensions of the Internet Neutrality, in particular those problems tied to exclusivity distribution agreements (smartphones, audiovisual contents), device neutrality (walled gardens, connected TV), search engine neutrality or online advertising (Google) that are becoming even more relevant for the Internet openness and neutrality.

TEF would stress that these other dimensions are nowadays the battle field of the neutrality debate because they are the core of the new Internet business models, the development of new markets and innovative applications.

These new dimensions are inducing the exponential growth of network traffic, being the main challenge for the economic sustainability of the networks. In fact, the NN debate is mainly focused on the access and network operators, players who have to face the increasing cost and new investments of the networks without benefiting from the new revenue sources.

Moreover, TEF is particularly concerned about the growing impact of the new significant market position that are being established by major Internet players - i.e. handset manufacturers, content providers and applications - in relation to the following issues:

- the dominant position of Smartphone manufacturers and the associated walled garden ecosystem in relation to closed operating systems, attached App Store and the restrictions imposed to the application developers community
- the exclusivity agreements between television manufacturers and the major application and content providers that could lead to the creation of new walled gardens
- the competition dynamics and the potential SMP abuse in the online advertising and the search engine markets

- the fragmentation of the legal national frameworks that applies to Internet; the global dimension of Internet goes beyond any national border and therefore a European harmonization is required in areas such as IPRs, security, etc.

IV. CONCLUSIONS

Telefónica thinks that current debate should be rebalanced taking into consideration the other dimensions of Internet Neutrality (i.e. content providers and the exclusivity agreements of contents, devices and search engines) that nowadays are driving the Internet evolution.

TEF position regarding Internet and NN can be summarized as follows:

- Every regulatory and market approach should above all ensure end user's rights and choices
- Traffic growth makes it essential to allow operators to fairly manage the traffic on their network
- The ability to differentiate the Internet access retail offers in terms of features and prices should not be prevented
- The principles of transparency and non undue discrimination should be enforced
- Finally, the application of any additional legal obligations on the Internet other than competition rules is unnecessary

However, Telefónica would like to underline the fact that the main challenge industry is currently facing is its long term economic sustainability. Due consideration should be given to this fact during the Network Neutrality debate

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