



Creating a brighter future

Response to the Public Consultation on 'Specific Aspects of transparency, data management and switching in an Open Internet'

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Introduction and summary

The FTTH Council Europe (hereinafter the FTTH Council) welcomes the opportunity to participate in the consultation 'Specific Aspects of transparency, data management and switching in an Open Internet'.

The FTTH Council is an industry organisation with a mission to accelerate the availability of Fibre To The Home (FTTH) access networks to consumers and businesses. The Council promotes this technology because it will deliver a flow of new services that enhances the quality of life, contributes to a better environment and increased competitiveness. The FTTH Council consists of more than 150 member companies. Its members include leading telecommunications companies and many world leaders in the telecommunications industry (additional information is available at www.ftthcouncil.eu). Telecoms operators are not members of the FTTH Council and we have our own perspectives regarding the appropriate regulatory policies to accelerate NGA deployments.

Since the FTTH Council Europe does not have any network operators as members, it is therefore not in a position to answer or comment especially upon questions related to traffic management, IP Interconnection etc. Instead the FTTH Council Europe would like to avail of the option to submit separate comments which seek to address those areas of specific interest to the member of the FTTH Council.

Specifically, the FTTH Council wishes to make its views known with respect to the issue of transparency as regards advertised speeds in particular but also other indicators that affect consumer experience. Latency and jitter though not well known can have a material impact on the performance of real-time heavily interactive services.

The FTTH Council has conducted research which shows that over time, approximately 5 years, FTTH networks attract ARPU increases of the order of 50%. This is a dramatic finding in itself but for the Council one area of interest is the consistency of time in delivering the revenue increase. The findings in the research suggest that consumers do not understand or appreciate what it is that FTTH can deliver but that once they do, they are happy to pay for that benefit. It is therefore critical that those self-same consumers are not misled in any way regarding what it is that they will purchase.

However, there are other studies which show that this is precisely what is happening and furthermore, the extent of the deception is precisely at those high speeds where FTTH differentiates itself from alternative networks.

The European Commission's Eurobarometer survey highlights the problem, it demonstrates that consumers have become desensitised to speed categorisations since they are more or less meaningless in the manner in which they are currently used. The consequent temptation for network operators to over-hype and over market is far greater in this context leading to a downward spiral that sees operators advertising products which they cannot deliver and which consumers do not understand they are not receiving.

Further research by Dotecon notes that large differences between what is being promised and what is being delivered actively suppresses demand for fibre as copper-based access may be wrongly

perceived to provide similar service and that such advertising could artificially depress the fibre premium. This finding is entirely consistent with the finding noted in the Diffraction analysis study which noted the time needed for higher ARPU to assert itself for FTTH networks. The importance of correct transparency measures should not therefore be underestimated.

As regards nature of an appropriate transparency measure, the FTTH Council would outline its concern at the poor performance of voluntary codes of practice. In short, they do not work and as shown below, a whole class of operators may exclude themselves (e.g. mobile operators) and those who are members continue to market products that they cannot deliver. Any measure proposed must be effective in curtailing advertising to the limits of the network performance.

Finally, the FTTH Council offers its headline positions on traffic management as they pertain to the other aspects of the questionnaire.

The importance of Transparency in Network Capacity

The fact is today, consumers are not fully informed about the reality of the services they receive in terms of speed or other quality parameters and rely on the information given when signing up for a broadband connection being accurate. In Europe, certain regulators such as Ofcom in the UK found that *"DSL based connections continued to deliver average download speeds that were much lower than the headline 'up to' speeds which are frequently used to advertise broadband services. 'Up to' 8Mbit/s and 'up to' 20/24Mbit/s ADSL connections delivered just 41% and 31% of headline speeds during the period, in line with results from previous research while cable and FTTC-based services on average delivered between 90% and 103% of headline speeds."* CMT made similar findings in the Spanish market where xDSL continues to underperform its advertised speeds especially as compared to FTTH products.

Such results appear to be almost universal. The US Federal Communications Commission ("FCC") found that in the United States actual speeds for both downloads and uploads were much lower than the advertised speeds. The average actual download in 2009 speed was found to be only 40–50% of the advertised "up to" speed for which households signed up¹ with the exception of FTTH based products which tended to perform at or beyond the advertised speed. While the gap has narrowed in the latest report² it is still overwhelmingly the case that FTTH understates its performance whilst other network operators continuously overstate their performance.

That gap between promise and reality is greater for higher-speed DSL services. FTTH (and even cable) tend to deliver what they promise whilst DSL based networks materially underperform at the higher speeds.

As noted by Dotecon in a recent report for the FTTH Council *'Such large differences between what is being promised and what is being delivered could actively suppress the demand for fibre as copper-based access may be wrongly perceived to provide similar services. Combined with the fact that*

¹ Federal Communications Commission, "Connecting America – The National Broadband Plan", 2010

(<http://www.broadband.gov/download-plan/>) - Exhibit 3.G and accompanying text

² <http://www.fcc.gov/measuring-broadband-america/2012/july>

many customers may not be able to establish the speeds they are actually obtaining, and even if they might not be in a position to identify their connection as the main source of poor service quality (which may for example also be the result of congestion at the server end when downloading popular content), such advertising could artificially depress the fibre premium.'

Improving the information provided to customers is an obvious way of removing distortions in valuation. This would entail, for example, provisions that stipulate what information has to be provided to customers, and in what form. Information about maximum available speed, for example, might be misleading, and operators could be required, for example, to inform customers about the speed they should be expecting to get most of the time, taking account of the quality of the line, distance from the exchange, contention ratio used by the operator etc. Alternatively (or in addition), there might be information about minimum guaranteed speed, and a clearer identification of available upload speeds.

The FTTH Council has commissioned other studies which show that FTTH networks enjoy a close to 50% uplift in ARPU over time¹. These results are fairly consistent across markets and indicate that where there is a competitive and regulatory dynamic which supports investment, operators can invest based on market returns. One interesting observation in that study by Diffraction Analysis is that: *the most influential factor, as shown in Exhibit 2, is time. In other words, the longer an FTTH infrastructure has been in the market, the better its take-up rate.*

The implication of course is that over time, consumers come to understand what it is that is been offered and come to understand the associated value. Right now, that relationship is broken. Consumers cannot see what is being offered clearly because of misleading representation of network capabilities.

This is entirely consistent with research undertaken by Rosston et al.³ which suggests that the valuation of internet connectivity is dependent on experience. Quoting results from the Pew Internet and American Life Project (2010) and their own survey data, they report that roughly a third of inexperienced households would take up an internet service once they have experience the benefits of the service. In relation to higher speed services, the study found that subscribers' valuation of speed increases with experience, defined in terms of their existing connection speed, the period for which they have been connected, and experience with 'internet-related devices and applications'.

The special Eurobarometer published in June indicated that 58% of Europeans did not know the speed of their connections (an additional 6% of those who thought they knew their contract speed did not in fact)⁴. A similar survey by the FCC on the consumer broadband experience found that 80%

³ Gregory L. Rosston, Scott J. Savage, and Donald M. Waldman (2010) "Household Demand for

Broadband Internet in 2010," The B.E. Journal of Economic Analysis & Policy: Vol. 10: Issue 1 (Advances),

Article 79; available at: <http://www.bepress.com/bejeap/vol10/iss1/art79>

⁴ http://ec.europa.eu/information_society/digital-agenda/scoreboard/docs/pillar/studies/eb_ecomm/final_reports/eb381-report_en.pdf

of broadband users in 2010 did not know the speed of their broadband connection⁵. De-sensitised to speed (because of historical inaccuracy it told nothing).

What the Eurobarometer survey clearly demonstrates is that consumers have become desensitised to speed categorisations since the way they are communicated and not delivered makes such speed categorisations more or less meaningless. The consequent temptation for network operators to over-hype and over market is far greater in this context.

This is manifested in the widening gap between what is offered and what is sold particularly at higher speeds since marketing often takes the form of 'up to 100Mbps', even though the vast majority of customers take products at lower speeds. One unfortunate causality of this misleading advertising is networks which can actually deliver very high speeds and not only advertise them.

The ultimate implication of this analysis is that a misrepresentation of what is being delivered, calling a 10Mbps connection a 30Mbps connection and so on, will further distort the perception and experience of users and undermine the take up of FTTH.

Special measures are needed to ensure that minimum conditions with regard advertising of services should be imposed in the interests of QoS and transparency. Those conditions need to be simple and clearly communicated to end-users so that a fair comparisons between network products can be made. Such information needs to accurately cover a range of service characteristics, download and upload speeds, latency and jitter and importantly other service restrictions including cut-off data caps. A data cap which can be reached quickly with a high capacity network needs to be highlighted proportionately. For instance a 1Gbps download capacity implies a 300Gbps data cap could be filled in 5 minutes.

To the extent possible, service parameters should be communicated in a manner that can be easily understood by consumers. For instance, online gaming needs low latency and above a certain latency rate online game quality will deteriorate markedly.

Voluntary Codes of Practice

The FTTH Council Europe believe that voluntary codes of practice are not sufficiently robust to constrain the advertising behaviour of network operators and something which is more legally robust is required.

The UK voluntary code of practice (available here) <http://stakeholders.ofcom.org.uk/telecoms/codes-of-practice/broadband-speeds-cop-2010/code-of-practice/> is a good example of the dangers inherent in a voluntary code.

For instance, the basic proposition from the Commission is that a combination of transparency and a competitive market will allow informed consumers who are not getting what they require to switch

⁵ J Horrigan and E Satterwhite, "Americans' Perspectives on Online Connection Speeds for Home and Mobile Devices" 2010 (http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-298516A1.doc)

to an alternative operator. However, the list of signatory ISPs has the notable exception of all Mobile Broadband Providers (though their fixed providers are participants, their mobile businesses are not signatories). The UK performance in terms of meeting the speeds advertised is regularly monitored by Ofcom. Their findings do not indicate that the problem is in any sense resolved:

However, the evidence from Ofcom's research indicates that these headline speeds are rarely achievable in practice by the majority of consumers that buy them. This is due to a number of factors, including the nature of the customer's line, the capacity of ISPs' networks, the number of subscribers sharing the network, and the number of people accessing a particular website at a particular time.

The code was introduced in June 2008 but the survey results from first half 2012⁶ show that the average speed for products advertised by signatories to the code of between 10 and 30mbps the actual average speed was 7.3mbps. The reality is that BT, a provider who signed up to the code at its inception has higher speed products of up to '38Mbps' and up to '76Mbps' never reach those speeds even at maximum performance and the average speed experienced falls some way short.

The conclusion must be that such voluntary codes of practice are ineffective on two fronts. First, a whole class of providers may choose to exclude themselves, thereby removing any possibility of switching. Second, even those operators who are signatories to the code behave as if they are not bound in any way and continue to 'over-market' their products and this is particularly true at higher speeds.

Only binding obligations which bind operators' behaviour and genuinely inform consumers of what is available and from whom are likely to have any lasting effect. It could be that NRAs could work with National Advertising Authorities to devise a mechanism to correct advertising norms.

Provisions

The FTTH Council believes that there should be QoS Monitoring and that such monitoring should include a range of quality parameters: actual vs. advertised speeds, measurements of timing parameters (e.g. latency or jitter), level of congestion in the network, performance of IAS compared to specialised services, quality as perceived by end users, and IAS offers on the retail market (e.g. availability and penetration).

The FTTH Council would believe the functional requirement to include an 'Access performance required to be comparable to advertised speed' and that a detailed technical requirement specifying 'A typical or minimum actual access speed to be required' should also be included.

Transparency conclusions

The FTTH Council believes that monitoring and requiring accurate network metrics to be collated by NRAs is important. This can allow NRAs to judge the correspondence of actual versus advertised broadband speeds in the name of transparency and the assessment of network management.

⁶ <http://stakeholders.ofcom.org.uk/market-data-research/other/telecoms-research/broadband-speeds/broadband-speeds-may2012/>

The FTTH Council would emphasise that the issue of network transparency is not simply one of user rights (though these are important) but it is also an issue regarding the development and take-up of advanced networks and services which will have an impact on the general economy.

The evidence suggests that consumers will pay for higher speed once they understand the difference that exists between high and low capacity networks. Misleading advertising undermines that fundamental dynamic and is a major inhibitor of FTTH roll-out in Europe. If consumers do not understand what they are buying then they cannot send appropriate investment signals to market operators.

The FTTH Council Europe believes that a transparency policy should be accessible, understandable, meaningful, comparable and accurate if it is to be effective. Furthermore, firms which do not adhere to a high degree of accuracy in their advertising should face an appropriate level of sanction.

The FTTH Council also believes that there must be a viable choice for consumers that they can act upon if they are not getting the service they want.

The FTTH Council would also note in that while some NRAs such as Ofcom in the UK and CMT in Spain have tested network delivery speeds against advertised speeds and have highlighted the persistent underperformance of DSL networks, a more systematic and Europe-wide assessment is a necessary complement to the current proposals on transparency regarding what is delivered over those networks.

Well informed consumers with choice of suppliers will be enable a more dynamic and responsive market to the benefit of consumers and industry.

Openness of the Internet

The FTTH Council fully supports an open internet, based on the fundamental principle that any end-user should be able to access any content of its choice, with any device of his choice. These principles are now enshrined in the recently revised European telecoms framework. We are therefore opposed to blocking or any anti-competitive traffic management which would restrict innovative service development or competition.

We believe in an internet where demand is met and indeed created through the provision of new and innovative services, such as for example cloud computing, high definition video conferencing solutions, telemedicine or smart grid applications. For these new services to thrive, a consistent quality of service is required.

Fair competition

The FTTH Council believes that a competitive market is the best way to protect everyone's interests rather than regulation. Customers should have a wide choice of internet access providers and should be able to switch between providers without penalty subject to their contracts.

Transparency

The FTTH Council believes customers should have access to meaningful information on their broadband plan, the minimum and general level of experience they can expect, and the conditions under which their traffic is handled. We therefore fully support enhanced transparency requirements in the revised Framework, in particular as it relates to broadband quality parameters. For the moment many broadband quality and product descriptions are often inadequate or misleading.

Traffic management

The FTTH Council believes the discussion on network management highlights an advantage of FTTH networks. FTTH access networks have much more capacity available so the degree of network management is likely to be less.

However, the FTTH Council recognizes traffic management is a requirement for all networks, and congestion will also shift and occur in other parts of the network (e.g. backhaul, core, transit). Therefore, effective management tools are needed to manage congestion and optimise the performance of the various applications using the networks.

Support for innovation and new business models

FTTH Council Europe believes a fair distribution of the Internet value chain is key for industry actors. This is particularly true for FTTH deployments given the investment that is required and the need to monetize those investments.

The FTTH Council believes that network owners should have the freedom to offer added value services and to dedicate capacity to specific managed services on their networks with enhanced or guaranteed quality of service. A variety of commercial models may develop, some of which may

include customers or application providers paying for enhanced capability, such as prioritised delivery. For the moment such models cannot be anticipated but there should be no presumption against innovative business model, case by case assessments are the appropriate means of review.

In an FTTH network, a network owner should have complete freedom to determine how much capacity is allocated to dedicated services. Mobile and other restricted access technologies should also be allowed to offer managed services while ensuring the “best effort” internet access is not degraded. In this context, a potential concern could arise if networks with restricted bandwidth dedicate a lot of capacity to specific services restricting the available internet capacity to end users with potentially negative impacts on the competitive outcomes.

Regulatory Framework

The FTTH Council believes that the legal framework and regulatory practice to date appear to be sufficient to ensure the smooth operation of the internet. In most circumstances, a case-by-case consideration of whether certain practices threaten the smooth operation of the internet is appropriate.

The FTTH Council believes that the European framework provisions regarding net neutrality are well balanced and that a competitive access market with some transparency and consumer protection measures are the best solutions to prevent anticompetitive network management or behaviour.

The FTTH Council believes that the regular reviews foreseen in the Review of the Regulatory Framework are appropriate but the FTTH Council does not see the need for any additional regulatory or legal instruments at this time.

FTTH Council Europe



President of the Board



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