

## RESPONSE TO BROADBAND USO CONSULTATION

### INTRODUCTION

The document clearly sets out Ofcom's analysis, assessments, criteria and decisions of all previous consultations including responses received. The description of the various technologies suitable for providing the specification for broadband USO is extremely useful in responding to this consultation.

However, I have two concerns regarding the implementation of broadband Universal Service Obligation (USO) --- i) How are the Communities, who own and maintain their broadband network, going to be affected? Refer also to Question 3 comments.

ii) Will the broadband USO specification, as outlined in this consultation, be adequate to service Voice over the Internet when the PSTN service is closed? Refer also to last response comments on page 2.

#### Section Choice of Providers

5.72 Proposals – questions 1 to 3.

Q 1 --- Yes; Q 2 --- Yes;

Q 3 --- Over the past decade many Communities own and maintain their broadband networks. In Section 5.50, BT suggested Ofcom designate multiple USO Providers. If BT and Openreach (and KCOM Hull area) are willing to control any fault process then these Community broadband networks could be considered as a USO Provider. Section 7.43 is also relevant in regarding Community networks.

Section Eligibility Threshold 6.26 --- Q 4 --- Agree.

Section Checks on Eligibility and Shared Costs 6.81 --- Q 5 --- Agree. Q 6 --- Agree.

Section Eligibility re Reduced Costs 6.105 Q 7 --- Agree.

Section Raise Awareness Condition 6.112 Q 8 --- Agree.

Section Delivering USO Connections 7.29 Q 9 --- Agree; Q 10 --- Agree.

Section Conditions on Pricing 8.30 --- Q 11a --- Agree. Q 11b --- Agree.

Section Same Level of Service Quality 8.48 Q 12 --- Agree.

Section Dispute Resolution 8.68 Q 13 --- Agree. Q14 --- Agree.

Section Ofcom Reporting and Monitoring 9.17 to 9.19 Q 15 --- Agree. Q 16 --- Agree.

Section Information Necessary to Support a Counterfactual scenario 9.53 Q 17 --- Agree.

FURTHER COMMENTS please refer to page 2.

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### FURTHER COMMENTS

Ofcom's Proposed Annual Plan 2019 / 2020 Consultation included three important statements that, in my opinion, will have an impact on the broadband USO.

Section 4.28 Migration to Voice over IP services (VoIP).

"As fibre-based services are rolled out and as communication providers develop plans to retire the Public Switched Telephone Network (PSTN), consumers will increasingly be migrating to VoIP. We will work with providers to help ensure issues raised by this migration are identified and addressed with the aim of protecting consumers from harm and minimising disruption".

Section 5.6 "Build the capability to ensure communication providers manage security risks and achieve appropriate levels of resilience".

Section 4.3 and 4.4 "Allocating and managing telephone numbers. We will investigate the use of a common, centralised database ( or other technology ) that could support number management, authentication of calls and number portability in the future".

In this Consultation, Section 2.15 to 2.19 Broadband Universal Service Order, provides the details of the technical specification and associated criteria.

As a telecoms transmission network engineer, I am fully aware of the design characteristics of the PSTN. These include the multiple and diverse routing between towns and cities to ensure a very high level of resilience throughout most of the voice network. Remote rural areas, however, full resilience is difficult to achieve.

In a voice telephone call the speech bandwidth is filtered to allow the frequencies between 500 hertz and 3.4 Kilo Hertz to be digitised through the network. This frequency band is deemed acceptable for recognition of a persons voice. In the PSTN an equal "bandwidth" is used in the 'transmit' and 'receive' directions.

In the internet the 'download' and 'upload' speeds are different. The USO specification of 10 Mbs to 1 Mbs, the upload is 10%. With superfast 47 Mbs to 8 Mbs, the upload is 17%. With ultrafast 350 Mbs to 20 Mbs the upload is down to 5.7%.

To Ofcoms knowledge has any testing of VoIT been carried out in the UK?

What broadband speeds will be acceptable for high quality voice calls?

Has the resilience design of the various broadband providers networks been investigated? Are they as good or better than the main PSTN network?

Will a 50 to 1 contention ratio be acceptable for VoIT calls?

What risk management requirements are envisaged for "back up power" needs for a small business when voice and internet services are combined on a single platform?

The migration of PSTN to the Internet is a major project, the earlier we investigate all the likely problem areas the smoother the transition.

Submitted by G D Adam.

Email: (✂)