



SINGNET PTE LTD (“SINGNET”)

**SUBMISSION TO THE MEDIA DEVELOPMENT AUTHORITY OF SINGAPORE
 (“MDA”)**

IN RESPONSE TO THE

**PUBLIC CONSULTATION ON THE PROPOSED CODE OF PRACTICE FOR
 TELEVISION BROADCAST STANDARDS**

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SINGNET RESPONSE TO THE MDA PUBLIC CONSULTATION ON PROPOSED CODE OF PRACTICE FOR TELEVISION BROADCAST STANDARDS

1. INTRODUCTION AND STATEMENT OF INTEREST

1.1 This submission sets out the response by SingNet Pte Ltd (“**SingNet**”) to the request for comments on the public consultation on the proposed Code of Practice for Television Broadcast Standards (“**Code**”) by the Media Development Authority of Singapore (“**MDA**”).

1.2 SingNet is a leading Internet service provider (“**ISP**”) in Singapore and has been at the forefront of Internet innovation since 1994, being the first ISP to launch broadband services in Singapore. SingNet is also licensed by the MDA to offer IPTV services under a nationwide subscription television licence (“**Licence**”) granted by the MDA. Accordingly, SingNet has an interest in the Code.

1.3 SingNet’s submission in response to the MDA public consultation paper on the proposed Code is structured as follows:

- Section 1 – Introduction and Statement of Interest
- Section 2 – Summary of Major Points
- Section 3 – Specific comments
- Section 4 – Conclusion

2. SUMMARY OF MAJOR POINTS

2.1 The key points made in this submission for the MDA's consideration are as follows:

- (a) We submit that the MDA remove the service coverage requirement from the proposed Code given that service coverage is dependent on the roll-out of the basic wired infrastructure over which the IPTV provider has no control; alternatively, the MDA should qualify this to say that it is based on the licensee's best endeavours.
- (b) We seek the MDA's clarification as to whether the requirements in paragraphs 2.3.3 (a), 4.2.3 (a) and 6.2.3 (a) of the proposed Code are meant to be one-off submissions, i.e. SingNet is only required to provide a one-off written description for each of its procedures in relation to paragraphs 2.3.3 (a), 4.2.3 (a) and 6.2.3 (a) of the proposed Code.
- (c) While SingNet supports the MDA's initiative to introduce a code of practice for Television Broadcast Standards, there is a need for the MDA to review the requirements to ensure that it can be easily implemented and is realistic. For example, SingNet has concerns with the requirement that licensees ensure that the programmes on the IPTV services that it may provide shall achieve a picture and audio grade of five (5) on the ITU-R 5-Point Quality Grading Scale as described in ITU-R BT.500.
- (d) The MDA should exclude instances where programmes are not accurately synchronised if the issues lie with the source feeds from the content providers.

- (e) There should be a minimum amount of time for licensees to attend to and handle complaints.
- (f) The requirement for the submission of recordings should be aligned with the current requirements imposed on nationwide subscription television service providers.
- (g) Implementation-wise, there is a need for the MDA to be more specific on how it intends to assess the quality of television broadcasts and the specific requirement expected from licensees.
- (h) The MDA has not defined what is meant by an “*outage*”. We request that the MDA sets a realistic threshold for defining an “*outage*”.
- (i) The Channel ORI and Service ORI results should exclude factors out of the licensee’s control, and where the licensee cannot reasonably be aware of nor could it take necessary actions to prevent such factors from occurring.
- (j) There also appears to be some inconsistency in the definitions used in the proposed Code as well as a lack of definitions on some key terms, e.g. whether references to “*person*” in paragraph 2.3.2 of the proposed Code shares the same definition as “*Person*” as defined in paragraph 1.5 (a); references to “*programmes*” in paragraphs 4.2.2 (a) and 4.2.2 (b) of the proposed Code are not defined.
- (k) We note that the MDA has not provided any guidance on how any contravention of the proposed Code will be assessed, as well as the appropriate enforcement action should any licensee be found to have contravened the Code. SingNet submits that such clarity is necessary.

2.2 SingNet’s detailed comments are provided in the next section.

3. DETAILED COMMENTS

Service Coverage Requirements

- 3.1 SingNet is concerned that the MDA has attempted to work coverage and rollout obligations into the proposed broadcast standards quality framework. We would note that rollout and coverage obligations are contained in the nationwide subscription television licence granted to SingNet. As such, we believe that it is unnecessary that a separate requirement be included under the proposed Code. In view of this, SingNet proposes that the MDA removes the service coverage requirements under the proposed Code.
- 3.2 Notwithstanding the above, we also note that the MDA may not be fully aware of the nature of roll-out of IPTV service. For example, SingNet rolls out its services over both asymmetric digital subscriber line (“**ADSL**”) and fibre infrastructure owned, operated and maintained by other parties; SingNet is not a Facilities-Based Operator (“**FBO**”) licensed by the Info-communications Development Authority (“**IDA**”) to own, operate and maintain ADSL or fibre infrastructure. We depend on FBOs and/or Public Telecommunications Licensees (“**PTLs**”) licensed by the IDA, e.g. OpenNet Pte Ltd (“**OpenNet**”) and/or Singapore Telecommunications Limited (“**SingTel**”) to roll-out their ADSL and/or fibre infrastructure. SingNet then acquires the use of such infrastructure from these other parties in order to provide its IPTV service over them.
- 3.3 Therefore, for SingNet to offer a service to any person in Singapore who requests for the same, SingNet is fully dependant on these other parties achieving their rollout. For that matter, we are aware from parties like SingTel that to provide a fibre infrastructure to the customer’s premises (i.e. the ‘last-mile’ connection), approvals from relevant authorities like the Land Transport Authority (“**LTA**”) and

- building owner/management are required so that FBOs/PTLs can install the necessary infrastructure, and approval from the customer is required to install the necessary infrastructure, e.g. optical fibre into their premises.
- 3.4 In other words, it may not be technically feasible that an IPTV licensee, who is dependent on FBOs and/or PTLs to roll-out infrastructure, can make available to any person in Singapore the IPTV service that it may provide.
- 3.5 We therefore submit that the MDA remove this requirement from the proposed Code, or at least qualify this to say that this requirement is based on the licensee's best endeavours.
- 3.6 Without prejudice to our view above, in the event that the MDA determine that this section on service coverage requirements remains necessary/relevant, we seek the MDA's clarification as to whether the requirement under paragraph 2.3.3 (a) of the proposed Code is meant to be a one-off submission, i.e. the licensee is only required to provide a one-off written description of its procedures for ensuring the provision of its services to any person in Singapore.

Picture and Audio Quality Requirements

- 3.7 In relation to paragraph 4.2.2 (a) of the proposed Code, it is not technically possible to achieve a picture and audio grade of 5 on the ITU-R 5-Point Quality Grading Scale as described in ITU-R BT.500 for the following reasons:
- (a) There is no standard objective quality assessment for video quality;
 - (b) The ITU-R BT.500 can only be considered a subjective test for visual quality assessment that is concerned with how video is perceived by a viewer and designates his or her opinion on a particular video sequence;

- (c) Subjective video quality tests are dependent on human resource(s), cannot be completely accurate and different parameters of viewing conditions can influence the results, such as room illumination, display type, brightness, contrast, resolution, viewing distance, and the age and educational level of experts. The ITU itself has indicated that conducting subjective tests is difficult because they are time consuming and expensive. Moreover, reliable objective quality assessment methods have not been established for transmitted video and audio; and
 - (d) Even if the ITU-R BT.500 test is used, it would be near impossible to achieve a grading of 5 since the programmes are dependent on the source quality and transmission loss, e.g. bit error rate from satellite loss. In the case of IP-based services, encoding/compression, conversion of video to IP and vice versa is also required.
- 3.8 SingNet notes that references to “*programmes*” in paragraphs 4.2.2 (a) and 4.2.2 (b) of the proposed Code is not defined. SingNet seeks the MDA’s confirmation that “*programmes*” refer to linear channels only, i.e. these requirements do not apply to video-on-demand (“**VOD**”) content.
- 3.9 In relation to paragraph 4.2.2 (b) of the proposed Code, SingNet submits that licensees may not be able to ensure that the picture and audio of the transmitted programmes are accurately synchronised if the issue lies with the source feed from content provider(s). SingNet proposes that the MDA amends the proposed Code to exclude such instances.
- 3.10 SingNet seeks the MDA’s clarification as to whether the requirement under paragraph 4.2.3 (a) of the proposed Code is meant to be a one-off submission, i.e. a licensee is only required to provide a one-off written description of its procedures

for ensuring that the programmes on its services achieve the required standards of picture and audio quality.

- 3.11 In relation to paragraph 4.2.3 (c) of the proposed Code, SingNet wishes to highlight that depending on the issue(s) faced by viewers, licensees may not be able to address the issue(s) within the time period as specified by the MDA. Therefore, it is not reasonable that this obligation remains open-ended. We ask that the MDA provides a minimum amount of time for licensees to attend and handle to complaints. Furthermore, we note that the reference to speedy resolution is not defined. This is not realistic and not ideal to leave such obligations undefined as it does not provide regulatory certainty to both licensees and the MDA, and only serves to generate unrealistic expectations.
- 3.12 In relation to paragraph 4.2.3 (d) of the proposed Code, SingNet proposes that the quarterly report be submitted one (1) month after the end of the quarter instead of fourteen (14) days after the end of the quarter. In addition, SingNet seeks the MDA's confirmation that for footnote 10, "*viewer premise equipment*" includes the residential gateway ("**RG**"), set-top box ("**STB**") and/or any home networking equipment provided by licensees as part of the IPTV service.
- 3.13 In relation to paragraph 4.2.3 (e) of the proposed Code, the requirement for the submission of recordings must be aligned with similar conditions that the MDA imposes through the nationwide subscription television licence granted to licensees.

Reliability Requirements

- 3.14 SingNet notes that references to “*transmission network*” in paragraphs 5.1 (c) (i) and 5.1 (c) (ii) of the proposed Code is not defined.
- 3.15 SingNet notes that it is not clear whether the specific obligation for reliability requirements are as contained in paragraph 5.1 (d) of the proposed Code or as contained in the actual Channel ORI and the Service ORI requirements set out in paragraph 5.2.3 of the proposed Code. For example, paragraph 5.1 (d) of the proposed Code states that “*an outage is considered to have occurred when (i) there is an absence of a channel or service, or (ii) the subjective quality of a channel or service is annoying to viewers*”, with illustrations of what these mean. We would therefore understand that the MDA requires that the ORI measurements require a certain level of availability of a channel and/or service and a level of quality related to the channel and /or service, i.e. the actual obligations are contained in the ORI as set out in paragraph 5.2.3 of the proposed Code.
- 3.16 Notwithstanding this, SingNet seeks the MDA’s clarification as to how it will assess whether “*the subjective quality of a channel or service is annoying to viewers*”, i.e. how does the MDA intend to objectively assess that a licensee is incapable of maintaining the subjective quality of a channel or service at Grade 3 or more on the ITU-R 5-Point Scale. Aside from the explanation provided in paragraph 3.5 above on video quality, we would stress that a subjective measure cannot be used as a criteria to determine a licensee’s compliance with a code of practice as it would not provide licensees with any regulatory certainty.
- 3.17 In relation to the ORI definition, we note that the MDA has not clearly defined what is meant by an “*outage*”.

- 3.18 We also request that the MDA set a realistic threshold for defining an “*outage*”.
- 3.19 In relation to paragraphs 5.1 (e) and 5.1 (f) of the proposed Code, we request that the MDA amends the diagram as follows:
- (a) Channel ORI – “Content Source” should be amended to “Headend Content Received” as defined in paragraph 5.1 (f) of the proposed Code;
 - (b) Service ORI – SingNet proposes that the demarcation point should be the terminating access equipment, which is either the ADSL or optical line terminatl (“**OLT**”) equipment. This will similarly apply to paragraph 5.2.4 (d) of the proposed Code as well.
- 3.20 SingNet also notes that the MDA has indicated that “*the Channel ORI and the Service ORI results should take into account the loss of video or sound or control data essential to view the services due to any cause under the control, either directly or through contract arrangements, of the licensee*”. SingNet notes that this is unclear and wishes to remind the MDA that the contract arrangements of the licensee does not provide any control (whether direct or indirect) over the video, sound or any availability of the service.
- 3.21 As such, there are clearly:
- (a) factors outside of a licensee’s control that may adversely affect this quality;
and
 - (b) the licensee cannot reasonably be expected to be aware of, nor take necessary measures to prevent the occurrence of such factors, on its own accord.

- 3.22 It is therefore not reasonable that the MDA includes such factors in the ORI outages. We therefore submit that the MDA excludes outages due to such factors in the computation of the ORI.
- 3.23 In relation to paragraph 5.3.3 (b) of the proposed Code, we seek the MDA's clarification on what is meant by "*a licensee providing niche OTT TV services*", i.e. does this refer to a niche TV service licensee providing OTT services or does this refer to any licensee (including nationwide subscription television service licensees) who provides OTT TV services to a niche/limited audience?

Loudness Requirements

- 3.24 SingNet proposes that the loudness requirement should not apply to OTT TV services offered by licensees. We note that such a treatment would be consistent with the treatment for OTT TV services in relation to the picture and audio quality requirements, where the MDA has stated that "*OTT services are exempted from these requirements as licensees providing OTT services cannot guarantee end-to-end picture and audio quality, due to the service's reliance on the quality of the broadband connection and the use of adaptive bitrate streaming technology*". The same circumstances will apply in relation to loudness for OTT services.
- 3.25 SingNet proposes that the loudness measurement audit to be conducted at the last point of the baseband signal before encoding. This is consistent with industry practice where professional loudness meters are deployed for accurate loudness measurement.
- 3.26 In relation to paragraph 6.2.2 (b) and 6.2.2 (c) of the proposed Code, we ask that the MDA defines the duration for audio loudness measurement. Typically, the options are 10-second, 20-second or 30-second intervals.

3.27 SingNet seeks the MDA's clarification as to whether the requirement under paragraph 6.2.3 (a) of the proposed Code is meant to be a one-off submission, i.e. the licensee is only required to provide a one-off written description of its procedures for ensuring that the required loudness standards are achieved.

3.28 In relation to paragraph 6.2.3 (c) of the proposed Code, SingNet seeks the MDA's clarification on the requirement to conduct the annual loudness spot checks. For example, if a licensee undertakes the audit in October, will the results of the audit be considered valid by the MDA if the results were submitted to the MDA in December? Given that a licensee can operate more than one hundred channels, it will require substantial time and resources to undertake the loudness spot check since each channel will need to be assessed over a 24-hour period.

4. CONCLUSION

4.1 There is a need for the MDA to review the requirements to ensure that it can be easily implemented and is realistic. Implementation-wise, there is a need for the MDA to be more specific on how it intends to assess the quality of television broadcasts and the specific requirement expected from licensees.

4.2 There also appears to be some inconsistency in the definitions used in the proposed Code as well as a lack of definitions on some key terms

4.3 The MDA has not provided any guidance on how any contravention of the proposed Code will be assessed, as well as the appropriate enforcement action should any licensee be found to have contravened the Code. SingNet submits that such clarity is necessary.