

NDS Response to Consultation Paper on Issues Relating to Mobile TV Services

Promoting a Level Playing Field

NDS believes in and has consistently promoted a level playing field for all types of delivery platform in India – using cable, DTH satellite, IPTV, microwave distribution, powerline, terrestrial, wireless and yet to be developed technologies.

NDS welcomes any regulatory development that will facilitate the growth of new free-to-air and pay TV services, provided that the regulatory development will not:

- significantly impair the ability of content providers and platform operators to make reasonable returns on their investments, nor
- significantly favour one type of service platform or delivery method over the others, or disfavour one compared to the others.

NDS recognises that broadcast mobile TV is inherently a different type of service to the other broadcast TV services delivered to “fixed” devices, and that it is at a very early stage of deployment worldwide compared to such services.

Broadcast mobile TV is still at a nascent stage, with at least ten delivery technologies¹ and fewer than twenty commercially launched services to date. The technology fragmentation is thus far greater than that for either digital television broadcasting or 2G or 3G mobile telephony in their launch phases. Moreover, while DVB-H leads in terms of number of trials and services, the 1seg (ISDB-T), T-DMB and S-DMB technologies are way ahead of DVB-H in terms of usage, delivering mobile TV to over 11.7 million², 6 million³ and 1.2 million users or subscribers respectively. It thus appears too early to pick winning technologies.

¹ BCMCS, CMMB, DAB-IP, DVB-H / DVB-SH, DTMB, ISDB-T, MediaFLO, S-DMB, T-DMB & TDtv.

² Source: Japan Electronics and Information Technologies Association release, reported in “Mobile TV-enabled handsets reach over 11 million in Japan”, Entertainment Asia, 13 Sep 2007 at: http://www.entertainmentasia.com/news_detail.php?ct=1003&nid=851. As the 1seg mobile TV service is free, it is reasonable to assume that the number of users is at least equal to the number of handsets in use.

³ Source: Dr Young-Kil Suh, CEO of TU-Media, quoted in “Korea and China lead way beyond the box”, Patrick Frater, Variety Asia Online, 31 Aug 2007 at: <http://www.varietyasiaonline.com/content/view/1988/>.

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Response to Consultation Paper Questions

1. Whether the technology for mobile television service should be regulated or whether it should be left to the service provider.

The technology for mobile television service should not be regulated; it should be left to the service providers. This is in line with TRAI's position set out in its Recommendations on issues relating to Convergence and Competition in Broadcasting and Telecommunications dated 20 March 2006 (Annex II) and the Report of the Sub Group IV of the Working group for the I&B Ministry constituted by the Planning Commission (Annex III).

2. If the technology is to be regulated, then please indicate which technology should be chosen and why. Please give reasons in support of your answer.

Since the technology should not be regulated, NDS provides no indication of technology preference. NDS fully supports a range of mobile TV technologies and will support others as the market requires.

3. What will be the frequency requirement for different broadcast technological standards for terrestrial and satellite mobile television transmission in India?

NDS's expertise does not cover the area of optimum frequency bands for the various mobile TV technologies. However, most of the technologies can be used across a range of frequency bands wider than those in which they have been deployed to date and which are indicated in the Consultation Paper. For example, MediaFLO can be implemented on frequencies in the range 450MHz – 3GHz⁴ (sub UHF Band IV to S-band) and DVB-H is optimised for use on frequencies between VHF Band III to UHF Band V and L-band, while DVB-SH technology extends the DVB frequency range to S-band below 3GHz⁵.

⁴ FLO Forum brochure at http://www.floforum.org/news/FLOForum_brochure.pdf.

⁵ DVB-H Fact Sheet at http://www.dvb.org/technology/fact_sheets/DVB-H%20Fact%20Sheet.0207.pdf,
DVB-SH Fact Sheet at http://www.dvb.org/technology/fact_sheets/DVB-SH%20Fact%20Sheet.0307.pdf.

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4. Which route would be preferable for mobile TV transmission – dedicated terrestrial transmission route or the satellite route? Should the mobile TV operator be free to decide the appropriate route for transmission?

Both terrestrial and satellite transmission routes have significant strengths and weaknesses. Hybrid satellite-terrestrial solutions may be the best compromise in many cases. As a general comment on the Consultation Paper, it appears that the advantages of satellite-terrestrial hybrid technologies have been downplayed compared to their apparent suitability to the Indian market to provide national coverage with minimal cost and delay. For example, DVB-SH is not mentioned at all, and the comment in Section 4.8 about poor in-building reception takes no account of the improvement in in-building reception when a hybrid delivery approach is adopted, as in South Korea with S-DMB.

The mobile TV operator should be free to decide the appropriate route for transmission.

5. How should the spectrum requirements for analogue/ Digital/ Mobile TV terrestrial broadcasting be accommodated in the frequency bands of operation? Should mobile TV be earmarked some limited assignment in these broadcasting bands, leaving the rest for analog and digital terrestrial transmission?

A limited assignment of frequencies should be earmarked in all of the frequency bands listed in Sections 4.20 to 4.24 of the Consultation Paper. Where there are conflicting requirements for spectrum, a market-led approach should be used to determine actual frequency assignments.

6. In the case of terrestrial transmission route, how many channels of 8 MHz should be blocked for mobile TV services for initial and future demand of the services as there are nearly 270 TV channels permitted under downlinking guidelines by Ministry of Information and broadcasting?

Ideally, the number of channels to be assigned to mobile TV should be left to the market to determine. Recognising that TRAI needs some information with which to earmark

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frequencies for possible mobile television use, a reasonable approach would be to earmark at least one 8MHz channel in each of the frequency bands, in addition to Doordarshan allocations, to allow some competition. Such allocations should be confirmed by – and future additional allocations determined by – a market-led approach.

7. Whether Digital Terrestrial Transmission should be given priority for the spectrum assignment over mobile TV, particularly in view of the fact that the Mobile TV all over the world is essentially at a trial stage.

Whether Digital Terrestrial Transmission should be given priority over mobile TV deserves a careful analysis of which most meets the public need. This should take into consideration the number of people who could be served by DTT and by mobile TV, what other sources of TV they may have available and what level of usage they would get from DTT and from mobile TV. Alternatively, TRAI could offer no priority to either type of delivery platform and let the market “decide”.

It is not strictly correct that “Mobile TV all over the world is essentially at a trial stage”, although excluding Japan, South Korea and Italy⁶, the statement is essentially correct.

In India at year-end 2006, according to Media Partners Asia⁷, there were over 73 million cable, DTH and IPTV subscribers, compared to over 120 million TV households. Thus around 47 million households relied on terrestrial TV as their sole source of television. That was expected to fall to about 45 million by the end of 2007, due to the more rapid growth in cable, DTH and IPTV subscribers than overall TV households.

TRAI’s own figures show that the mobile subscriber base is around 201 million, growing at over 8 million in August. Even after taking account of the average number of potential viewers per TV household (~ 5.1), it is clear that mobile phones are increasing in

⁶ Italy had over 800,000 DVB-H subscribers at 30 June 2007, including 719,000 3 Italia subscribers, source 3 Italia: http://www.tre.it/assets/download/HWL_3Italia_Interim2007_ENG_23ago2007.pdf.

⁷ Asia Pacific Pay-TV & Broadband Markets 2007, India, pp282, 294/5, Media Partners Asia, Hong Kong.

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popularity much faster than terrestrial TV and that the number of mobile users should exceed the number of viewers solely reliant on terrestrial TV within six months.

While it is true that the vast majority of mobile handsets in use in India are not capable of receiving broadcast mobile TV, it is equally true that the vast majority of television sets in use in India are not capable of receiving digital TV without a set top box.

Moreover, viewers in general already have a choice of at least two routes for receiving television without subscription – terrestrial and DTH (via DD Direct Plus). Lastly, the digitalisation of terrestrial TV is not without risk – particularly the risk that viewers will decide to purchase a cable, DTH or IPTV set top box instead of a terrestrial one, if required to invest in new equipment in order to receive free-to-air TV services.

In brief, it is too simplistic to assume that digital terrestrial TV should be given priority without either a detailed analysis of public needs and current viewing and usage trends or allowing the market to “decide”.

8. Whether the frequency allocation for the mobile TV should be made based on the Single Frequency network (SFN) topology for the entire service area or it should follow Multi Frequency Network (MFN) approach.

Both SFN and MFN options should be accommodated, and the choice should be left to service providers and the market.

9. Whether frequency spectrum should be assigned through a market led approach – auctions and roll out obligation or should there be a utilization fee?

For final allotment of spectrum, NDS agrees with TRAI’s own preference for a market-led approach, based on spectrum auctions. The auctions will need to be constructed and operated to accommodate public service interests and public revenue interests in fairness to the public, Doordarshan and private broadcasters.

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10. What should be the eligibility conditions for grant of license for mobile television services?

The conditions should be reasonable considering the terms for broadcasting and telecommunications services, the comparative expected revenues from mobile TV services, and the higher degree of risk associated with commercially unproven services. TRAI should avoid burdening prospective mobile TV operators with a complex regulatory environment like that which has evolved for cable and DTH broadcasting.

11. Whether net worth requirements should be laid down for participation in licensing process for mobile television services? If yes, what should be the net worth requirements for participation in licensing process for mobile television services?

The same principles should be applied as recommended in the answer to question 10.

12. What should be the limit for FDI and portfolio investment for mobile television service providers?

The same principles should be applied as recommended in the answer to question 10.

13. What should be the tenure of license for the mobile television service providers?

The same principles should be applied as recommended in the answer to question 10.

14. What should be the license fee to be imposed on the mobile television service providers?

The same principles should be applied as recommended in the answer to question 10.

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15. Whether in view of the high capital investment and risk associated with the establishment of mobile television service, a revenue share system would be more appropriate?

Depending on the terms, this might be attractive to certain mobile TV service operators. Preferably, this should be one option of two or more offered to the prospective mobile TV service operators, to accommodate a wide range of business and investment plans. For example, additional options could be part license fee and part revenue share based.

16. Whether any Bank Guarantee should be specified for licensing of the mobile television service providers. If yes, then what should be the amount of such bank guarantee? The basis for arriving at the amount should also be indicated.

The same principles should be applied as recommended in the answer to question 10.

17. Whether the licenses for mobile television service should be given on national/ regional/ city basis.

Licenses for mobile television service should be granted according to service provider requirements. All three types of service should be offered, while recognising that sufficient frequencies may not be available for all three types of service in many areas. Where there are conflicting requirements for spectrum, there should be a spectrum auction process.

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