

Comments on the Consultation Paper on
“Issues relating to Mobile Television Service.”

By

Mohammad Kasim

Secretary TRAI
New Delhi.

Dear Sir,

Following comments may please be considered in connection with the consultation paper n. 9/2007 on “Issues relating to Mobile Television Service.”

Regards.

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P.S. : I am an employee of PB, however these comments reflect my personal opinion as a broadcast professional and should not be construed as the views of my employer.

Comments:

Chapter VII : Issues for consultation

Yes. The technology for mobile TV broadcasting should be regulated.

2. Mobile TV broadcasting technologies have been built upon digital TV standards already adopted and availability of spectrum in respective counties/ regions. The DTV standards in turn were built upon the strengths of existing analog TV infrastructure and to make available more spectrum. It is therefore imperative that several standards will exist for mobile TV broadcasting around the world resulting in several technology islands. The technologies for mobile TV broadcasting available today do not have significant merits over one another, but they have more bearing on the existing scenario prevailing in respective regions.

There are numerous advantages in having a single standard for the country. It not only helps develop the indigenous industry but also makes life easier for the consumer as

far as interoperability and costs are concerned. China has developed its own standards for DTV and is also working towards indigenous Mobile TV standard.

DVB-H is an open standard, built upon DVB-T which is the standard for digital terrestrial broadcasting in India. DVB-H is being tried widely around the world not only where DVB standards are followed but also in countries that have other DTV standards. Keeping in view the size of the Indian mobile market, adopting DVB-H as a single standard for the country will be beneficial to the consumers and the industry. The mobile broadcasting technology extensively uses software and applications. India being a leader in this area may develop into a sourcing hub for DVB-H applications and equipments for the world market. The European union is considering to mandate DVB-H for mobile broadcasting standard in Europe for similar reasons.

3. It may be important to note that the satellite mobile TV transmission system alone can not provide good mobile TV services independently. The satellite service will have to be integrated with the terrestrial transmission service to provide service in indoor and dense high rise areas. Here again the satellite and terrestrial technologies need to be compatible. The mobile operator would need about 8 -11 channels (para 4.1.6) for initial take off. Thus one terrestrial broadcast frequency band and equivalent frequency BW in satellite mode (or multiple thereof) may be provided to operators. More services can be accommodated in the BW in future with statistical multiplexing.

4. The dedicated terrestrial broadcasting mode may provide good services. However dedicated satellite mode may have problems. A combination of both may be the best approach. However it may be left to the operator to decide appropriate mode depending upon cost economics.

5. VHF broadcasting bands are fully utilised by analog broadcasting. UHF band-IV is also in use for analog broadcasting. UHF band-IV would be required by Prasar Bharati for introduction of Digital Terrestrial TV (DTT) services during 11th Plan. However in future if DTT is opened to private operators there may be huge demand for more spectrum. In future terrestrial broadcasting spectrum would also be required for HDTV services. It is therefore suggested that a limited part of band V UHF (582-806MHz) about 10 broadcast channels of 8 MHz each may be earmarked for mobile services. These broadcast channels would be repeated over different circles. Each circle can have 3 to 4 operators.

6. The no. of channels permitted under down linking (270) do not have direct relation to the 8 MHz channels required to be blocked for mobile TV broadcasting as only few down linked services like news and popular entertainment channels etc. are likely to simulcast over mobile platform. New content formats will evolve for mobile platform and the present channels will also have to be repackaged.

The spectrum therefore needs to be reserved on the basis of no. of operators being considered for each area and the optimum no. of services each operator would need in its bouquet to make the platform viable. Initially ten broadcast channels of 8 MHz each

would be sufficient for catering to 3 to 4 operators in each area having 20-30 services in their bouquet.

7. Yes. The situation can be reviewed later as the technology matures. Further in future broadcasting will be the medium for delivery of high quality content like HDTV. At present each 8 MHz BW can accommodate only 1-2 HDTV services. PB has also planned to introduce HDTV services in the metro cities by Commonwealth games 2010. DTT thus needs to be given priority.

8. SFN is an essential part of mobile broadcasting. However it is a complicated system to implement. Though SFN have proved useful in digital terrestrial broadcasting, however large area wise SFN for mobile broadcasting are yet to be tried to prove their usefulness. Citywise SFN would be essentially required for mobile broadcasting. Therefore citywise SFN approach needs to be followed for spectrum allocation.

9. Mobile broadcasting has immense potential for disseminating broadcasting content like education, disaster management etc. related to social development to the users as they can watch it anytime anywhere. Some elements of social obligation need to be included while assigning the spectrum. Therefore it should not be purely market led approach.

10. As the mobile broadcasts will always be restricted to Indian borders, conditions similar to FM broadcasting may be adopted. Code of conduct for content should be similar to that applicable to FM and TV services.

11. Similar to FM

12. Similar to FM

13. Similar to FM

14. Similar to FM

15. As compared to FM the capex is significantly higher to implement mobile broadcasting services. However in this case the possibility of getting subscription fees from a large consumer base in addition to payment for on demand content, t-commerce and advertising etc. increases the earning potential significantly. Revenue share is not required.

16. Similar to FM

17. Mobile TV broadcasting is similar in character as FM broadcasting. It would therefore be appropriate to consider city based licenses.

General:

An open industry encryption system may be recommended to ensure interoperability.

Content regulation as applicable for FM and TV services need to be mandated.

Pay and FTA services like in DTH and Cable need to be discussed for mobile broadcasting

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