

MOBILE TV: ISSUES FOR CONSULTATION

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

TRAI's one of the objectives is to promote technologies in open market competition. The service providers may make the choice of technologies as long as certain aspects like QoS, interconnection, interfaces, type approvals etc are well specified, standardized & regulated, where required, by the concerned authority. Regulation is to be mainly used to ensure level-playing field with competing technologies & services.

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.

In the background of security, sensitivity & strategic interests at large, terrestrial broadcasting has to remain regulated. However limited privatization should at least be allowed now to provide mobile TV services (DVB-H & T-DMB). Satellite broadcasting also needs to be further liberalized with light touch regulation to enable S-DMB services. As the Media FLO is a proprietary technology, it may still be allowed after establishing proper safeguards to consumers (similar to the steps taken for STBs in CAS & DTH). In case of Hybrid technologies, Satellite Networking of transmitters is another possible area of limited regulation.

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

In anticipation of greater digitalization, convergence & wider spread of CAS cable TV by mandate or voluntarily, the following may be considered subject to availability (particularly in L & S Bands):

DVB-H	UHF Band IV/V
T-DMB	L Band
S-DMB	S Band
Media FLO	UHF Band V

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?

The choice could be left to the Mobile TV operators. If mobile networks are used to deliver, the Mobile TV may spread faster. In small towns & rural areas TV/entertainment is usually proven to be a strong driver to growth subject to pricing & affordability of hand-held devices. Also the voice traffic is often not on the high side. Of course in such cases the mobile network operators must still meet the QoS norms at all stages & remain wholly responsible for the service quality.

In rural areas satellite route is too desirable. In metros & cities it will as well avoid the added network congestion.

With large numbers of transmitters already set up throughout the country, terrestrial mobile TV transmission is also a good alternative. In large cities availability of spectrum may be an issue. Elsewhere it may not be so acute. At least use of satellite combined with transmitters opens up the Hybrid option! TRAI has to highlight the requirement of infrastructure sharing.

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?

Yes, mobile TV should be assigned limited spectrum keeping in view that the Analogue transmission will continue in many parts of the country for quite a while & Digital terrestrial is yet to be privatized & to arrive on a large scale. However the thrust & initiative have to be towards digital services in future in various bands.

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?

Since VHF I is apparently not of interests to Mobile TV operators & VHF III wholly given to Doordarshan, 1-2 channels each of 8 MHz in UHF Band IV & V may presently suffice subject to availability & assessment of relative priorities of the existing services, if already assigned.

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.

Perhaps not in India at this stage. DD's DTT was not popular. Also many formats of TV transmission / delivery like C&S, DTH, Pseudo-DTH (DD Direct), Terrestrial TV, TV Unicast, Mobile TV, Internet TV, IPTV etc are all here in today's market. With the transponder prices falling fast & easy access to foreign satellites, TV viewing at home in terrestrial mode is unlikely to grow in popularity.

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 the options should co-exist depending on the ground realities in the service areas. Frequency bands are to be necessarily specified but the modality may remain flexible, if feasible in well coordinated planning.

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

Scarce spectrum should be made available at market led prices - preferably through well designed auctions (re successful Phase II FM Radio auctioning). The terms & conditions should include roll out obligations. And the spectrum utilization is also to be subject to monitoring.

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

It could be broadly based on FM Radio / DTH broadcasting criteria - both being *direct delivery* to consumers. Terrestrial Mobile TV terms should be closer to FM Radio. Satellite based Mobile TV may somewhat follow the DTH guidelines. In principle Mobile TV license may be a generic one keeping in view the technology neutrality. However, like in UASL, the concept of cross-technology should figure mainly to differentiate spectrum based direct broadcasting as opposed to Unicast TV delivery. Additionally cross-media holding in TV / Media sector has also to be specified. Finally on payment of suitable Entry Fees the licensed parties would qualify to participate in spectrum auction, as & when required.

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?

In terrestrial mode networth should be based on the type of service areas. In value it should be higher than FM Radio, but being a VAS it may be around 10-15% of telecom benchmark! With specified Entry Fees & networths it is imperative to keep out the *non-serious* aspirants right from the start - more so in sensitive Media sector!

For the satellite mode the networth could be considered region-wise or nationwide. The same goes for users of Hybrid technologies. However to promote this alternate technology the total networth may be fixed at a lower level than the networth of all the service areas added together in the region or across the nation.

Networth should also be specified per channel (similar to Downlinking guidelines).

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

FDI may initially be at 20% with the total foreign shares including FIIs not exceeding 49%.

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

Generally for a period of 10 - 15 years.

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

Perhaps 3-5% of revenues plus spectrum usage charges, if any.

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?

Yes.

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.

Yes - similar to FM Radio license terms & conditions.

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

Licenses for terrestrial Mobile TV should be for service areas equivalent to telecom circles. States / telecom circles are *broadly* based on same languages, cultural ethos, social mores etc - with of course pockets of heterogeneity in places. The goal should be to remove the Digital Divide & not accentuate it. Hence city-centric licensing is to be discouraged. In that case roll out obligations in service areas become more meaningful. However the satellite based Mobile TV & Hybrid technology based services may be licensed region-wise or nationwide.

P K BASAK

Senior Advisor & Director

P K Basak Associates
A 82 FF Lajpat Nagar II
New Delhi 110 024

Tel: +91 11 2983 6730 (TAM) / 2984 0683
Fax: +91 11 2984 0776
Email: pkbasak@gmail.com / basakpk@yahoo.com
Website www.basakassociates.com