

## **Bharti's Response – Consultation Paper on Issues relating to Mobile TV Service**

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

### **Bharti's Comments:**

Mobile TV is basically an application. Defining any specific technology for the application is not desirable as it would limit the choice of service providers and hamper technological innovation. Currently, several technology options are available for offering Mobile TV – 3G (HSDPA with MBMS), DVB-H, MediaFLO, T-DMB, S-DMB etc. It is also possible to provide this application using the 2.5G EDGE network. May be a year from now, mobile WiMAX may be capable of providing mobile TV as well.

Under the existing Unified Access Service License, it is possible to provide video applications and this shall be further enhanced with availability of 3G spectrum. Thus Mobile TV is an integral part of the Unified Access Service License.

In our opinion, Mobile TV shall always be an application alongside technology deployment and there seems to be no logic in trying to regulate the technology for Mobile TV which is still at testing phase. However since both DVB-H and MediaFLO are a broadcast technology as compared to 3G which is a telecom technology, the former would need fresh spectrum allocation. Therefore, regulation is needed for allocation of the spectrum for DVB-H and MediaFLO.

However, there is no need to specify/regulate the technology to be used for offering Mobile TV and this should be left to the choice of the service provider.

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- 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.**

### **Bharti's Comments:**

Technology should not be regulated at all. It should be left to the choice of the service provider to use any technology which suits the business case.

It may be pertinent to note that while issuing CMTS license, the DoT had left the choice of technology (CDMA or GSM) to the licensee. Similarly, while issuing license for MSOs, the Ministry of I&B had left the choice of technology (MPEG-2 or MPEG-4 or any other compression technique) to the licensee.

Similarly, in this case the service provider should be left with the choice of technology. The only thing that needs to be regulated, if at all, should be the spectrum as it is a scarce resource.

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

**Bharti's Comments:**

The allocation of frequency for terrestrial and satellite mobile television transmission should be as per the NFAP-2002. It should be harmonised internationally and also the aim should be to ensure affordability of service through economies of scale.

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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?**

**Bharti's Comments:**

Our understanding of the question here is related to the transmission methodology to be adopted for transmitting the content to the respective transmission towers in different cities.

In our opinion, the service provider should be free to choose the route depending on the viability of his business case. Even in the International Long Distance (ILD), National Long Distance (NLD) and Internet Service Provider (ISP) Licenses, the choice of transmission media (copper, optic fiber, electromagnetic frequency, satellite) is left to the service provider.

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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?**

**Bharti's Comments:**

Analogue terrestrial TV transmission is being phased out across the world and the spectrum thereby saved (called the digital dividend) is being fruitfully used. There should be no reason to encourage any further analogue terrestrial TV and it should be mandated to vacate the spectrum by getting it converted to digital within a specified timeframe as is being done world wide.

Mobile TV spectrum requirements can be determined based on popularity since the cost of handset would only be viable for mass consumption (i.e. affordable) only if it is in the most popular spectrum bands.

Terrestrial TV (both analogue and digital) has not seen any growth in the past and the growing popularity of DTH, IPTV and cable TV can only indicate that it shall remain limited to some nationally broadcasted channels. We therefore recommend that a reasonable chunk of the broadcasting spectrum be earmarked for the Mobile TV application and only a necessary minimum be left for the terrestrial broadcast. In addition, we would like to emphasize that analogue TV broadcasting should be mandatorily converted to digital within a pre-defined time frame to optimize spectrum requirement.

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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?**

**Bharti's Comments:**

With the current technologies there is a possibility of supporting 20 -25 channels with 8MHz channel and given the usage type for mobile TV the content shall be packaged in a manner to suite the application. With future expansions considered, 2 channels of 8MHz should be an appropriate amount of spectrum for every operator.

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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.**

**Bharti's Comments:**

Digital Terrestrial TV has not witnessed the growth that other TV broadcast technologies like DTH and Cable TV have seen. Even in India the viewer ship of the terrestrial broadcast channels is high only in areas where there is no access to either the DTH or Cable TV. Since there is a substitute available in the form of Cable TV/ DTH, these have become more popular. Moreover the cost involved in digital terrestrial broadcast is also quite high.

In view of the above, according preference to a technology which is not growing vis-à-vis its substitutes (which provide a cheaper option), would thwart the growth of an application which has immense potential for being very popular. The reasons for this are also quite apparent: (i) Entertainment is big in India and (ii) Mobile phone penetration levels in India have overtaken TV penetration levels. Therefore, we believe that preference should be provided to Mobile TV in terms of spectrum assignment rather than to digital Terrestrial TV.

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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.**

**Bharti's Comments:**

Single Frequency topology - SFNs is efficient utilization of the radio spectrum, allowing a higher number of radio and TV programs in comparison to traditional multi-frequency network (MFN) transmission. An SFN may also increase the coverage area and decrease the outage probability in comparison to an MFN, since the total received signal strength may increase to positions midway between the transmitters. SFN also simplifies guard band requirements and network planning. We therefore propose that SFN should be used in India.

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

**Bharti's Comments:**

As Mobile TV is an application and there is no reason for having a regulation of the technology to provide the application, the matter finally boils down to the allocation of the spectrum. As Mobile TV is a mass application and has to be an affordable proposition, it therefore needs to be ensured that the initial cost of deployment should not be prohibitively high.

We therefore recommend that the spectrum allocation should be on a usage based model as is being done for many other spectrum bands traditionally. However to ensure no hoarding of spectrum is resorted to, certain regulations related to withdrawal of spectrum, if not used within a certain time frame, may be used.

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

**Bharti's Comments:**

As stated earlier, Mobile TV is an application which is inherent in the Telecom Licenses granted to mobile operators by the DoT viz, CMTS licenses and UAS Licenses. No additional license should be needed for provision of Mobile TV service by the aforesaid telecom licensees. However, if any non-telecom licensee desires to provide Mobile TV service, a separate appropriate license should be prescribed for such Stand Alone Mobile TV Operators for which terms and conditions may be finalized by the government.

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- 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?**

**Bharti's Comments:**

Appropriate Net Worth requirements may be prescribed for Standalone Mobile TV Service Providers in order to discourage non-serious players.

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

**Bharti's Comments:**

We recommend an FDI ceiling of 74% for Standalone Mobile TV Service Providers to attract foreign investment and to maintain parity with Telecom Licensees providing Mobile TV service under UAS/CMTS Licenses.

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

**Bharti's Comments:**

In order to maintain parity with Telecom Licensees providing Mobile TV service under UAS/CMTS Licenses, we recommend a license term of 20 years.

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

**Bharti's Comments:**

As stated earlier, Mobile TV is an application which is inherent in the Telecom Licenses granted to mobile operators by the DoT viz, CMTS and UAS Licenses. Accordingly, no additional License Fee or Bank Guarantees should be imposed on the existing telecom service providers.

However, in case of a non-telecom licensee i.e. a Standalone Mobile TV Service Provider, an appropriate License Fee and Bank Guarantee, should be imposed by the government.

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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**

**Bharti's Comments:**

In view of our comments above, an appropriate level of revenue share license fee may be imposed on Standalone Mobile TV Service Providers.

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- 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.**

**Bharti's Comments:**

The government may consider imposing Bank Guarantee requirements on Standalone Mobile TV Service Providers.

Needless to state that no additional Bank Guarantee requirements need to be imposed on existing CMTS/UAS Licensees for providing Mobile TV service as the same is inherent in their existing telecom service licenses itself.

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

**Bharti's Comments:**

We recommend circle-wise licenses for Standalone Mobile TV Service Providers.

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