

Ref No: RP/FY 16-17/087/082

Dated: 28th October 2016

To,
Advisor (B&CS),
Telecom Regulatory Authority of India,
Mahanagar Doorsanchar Bhawan,
Jawahar Lal Nehru Marg, Old Minto Road,
New Delhi - 110002

Kind Attention: Shri Sunil Kumar Singhal

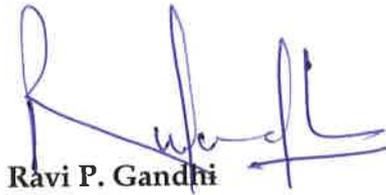
Subject: Response to Consultation Paper on Infrastructure sharing in Broadcasting TV distribution sector

Reference: TRAI Consultation paper no. 20/2016 dated 21st September 2016

Dear Sir

This is with reference to the above mentioned consultation paper. In this regard, please find enclosed our response for your kind consideration.

Thanking you
Yours sincerely
For Bharti Telemedia Limited



Ravi P. Gandhi
Authorized Signatory

Enclosed: As mentioned above

Bharti Telemedia Limited's Response to TRAI's Consultation Paper on infrastructure sharing in broadcasting TV distribution sector

- Q.1 Is there a need to enable infrastructure sharing among MSOs and HITS operators, or among MSOs? It is important to note that no mandate for such infrastructure sharing is being proposed.
- Q.2 Which model is preferred for sharing of infrastructure among MSOs and HITS operators, or among MSOs? Kindly elucidate with justification.
- Q.3 Is there a need to enable infrastructure sharing among DTH operators?
- Q.4 What specific amendments are required in the cable TV Act and the Rules made there under to enable sharing of infrastructure among MSOs themselves? Kindly elucidate with justification.
- Q.5 What specific amendments are required in the MSO registration conditions and HITS licensing guidelines in order to enable sharing of infrastructure among MSOs and HITS operators? Kindly elucidate with justification.
- Q.6 What specific amendments are required in the guidelines for obtaining license for providing DTH broadcasting service to enable sharing of infrastructure among DTH operators? Kindly elucidate with justification.
- Q.7 Do you envisage any requirement for amendment in the policy framework for satellite communication in India to enable sharing of infrastructure among MSOs and HITS operators, and among DTH operators? If yes, then what specific amendments would be required? Kindly elucidate with justification.
- Q.8 Do you envisage any requirement for amendments in the NOCC guidelines and WPC license conditions relating to satellite communications to enable sharing of infrastructure among MSOs and HITS operators, and among DTH operators? If yes, then what specific amendments would be required? Kindly elucidate with justification.
- Q.9 Do you envisage any requirement for amendments in any other policy guidelines to enable sharing of infrastructure among MSOs and HITS operators, among MSOs, and among DTH operators? Kindly elucidate with justification.
- Q.10 What mechanisms could be put in place for disconnection of signals of TV channels of defaulting operator without affecting the operations of the other associated operators with that network after implementation of sharing of infrastructure among MSOs and HITS operators, among MSOs, and among DTH operators? Kindly elucidate.

- Q.11 Is there any requirement for tripartite agreement to enable sharing of infrastructure among MSOs and HITS operators, among MSOs, and among DTH operators? Kindly elucidate with justification.
- Q.12 What techniques could be put in place for identification of pirates after implementation of sharing of infrastructure among MSOs and HITS operators, among MSOs, and among DTH operators? Kindly elucidate.
- Q.13 Is there any need for further strengthening of anti-piracy measures already in place to enable sharing of infrastructure among MSOs and HITS operators, among MSOs, and among DTH operators? Kindly elucidate with justification.
- Q.14 Is there a requirement to ensure geographically targeted advertisements in the distribution networks? If yes, then what could be the possible methods for enabling geographically targeted advertisements in shared infrastructure set up?
- Q.15 Whether it is possible for the network operator to run the scrolls and logo on the specific STBs population on request of either the broadcaster or the service delivery operator after implementation of sharing of infrastructure among MSOs and HITS operators, among MSOs, and among DTH operators? If yes, kindly elucidate the techniques.
- Q.16 Whether implementation of infrastructure sharing affects the differentiation and personalization of the TV broadcasting services and EPG? If yes, then how those constraints can be addressed? Kindly elucidate with justification.
- Q.17 Whether, in your opinion, satellite capacity is a limiting factor for sharing of infrastructure? If yes, then what could be the solutions to address the issue?
- Q.18 Is there a need to permit sharing of SMS and CAS?
- Q.19 If yes, then what additional measures need to be taken to ensure that SMS data remain accessible to the tax assessment authorities and Authorized officers as defined in the Cable TV Act for the purpose of monitoring the compliance with relevant the Rules and the Regulations?
- Q.20 Whether sharing of CAS can in any way compromise the requirement of encryption as envisaged in the Cable TV Act and The rules and the regulations.
- Q.21 In addition to the issues mentioned above, comments of stakeholders is also invited on any other issue relevant to the present consultation paper.

Airtel's Response:

1. At the outset, we place our sincere thanks for providing an opportunity to submit our response on this consultation paper. We hope that TRAI will consider our submissions favorably.

2. Infrastructure sharing in the broadcasting sector entails huge technical, operational, commercial and other challenges and, therefore, it should be totally voluntary and optional for DTH operators (and for all stakeholders) and not be made mandatory through any regulatory intervention. Some of these challenges are as follows:
 - a. If DTH operators share their existing satellite bandwidth, they will have to re-align all their existing dish antennas installed at the subscriber premises due to a change in satellite. Meanwhile, simultaneous uplink on two satellites would be required till the migration is completed. Such an exercise will entail huge capex and opex.
 - b. Normal satellites do not have so much payload (transponders) and frequencies available on the same orbit supporting 40 transponders (assuming that at least 6 transponders will be needed for each operator to uplink unique content/value-added services) and, hence, a challenge.
 - c. Satellites are single points of failure (SPOFs) for most of the operators. Hence, we need to have a redundant satellite capacity at the same orbit to ensure business continuity.
 - d. Currently, different DTH operators use different combinations of technology in set-top boxes. For instance, Airtel uses MPEG-4 compression technology and DVB-S2 transmission technology, which is the most advanced technology currently available in the market and is backward compatible. However, some DTH operators are using a lower specification of compression and/or transmission technology. Thus, there cannot be a common headend and RF system for all DTH operators without replacing STBs. The cost of such a replacement would be enormous.
 - e. There will be issues related to piracy, audit and billing with broadcasters as the facility will be common and it will be operationally difficult to manage and control the Conditional Access System (simulcrypt) in terms of security and revenue assurance.
 - f. The ownership for handling a common facility operationally, as well as owning QoS and service/network uptime for providing common services to all operators will be a huge challenge.
3. In fact, the Indian government has allowed for all types of infrastructure sharing (active, passive and spectrum sharing) among telecom operators on a voluntary basis without any regulatory intervention. This policy framework has been highly successful in the Indian telecom sector and can be replicated for the broadcasting sector as well.

4. Since infrastructure sharing in the broadcasting sector entails huge technical, operational, commercial and other challenges, we recommend that TRAI should constitute a working group consisting of officials from TRAI, participants from DTH operators and other relevant stakeholders to deliberate upon all policy and operational issues related to infrastructure sharing, and suggest an appropriate regulatory and licensing framework under which the infrastructure sharing can be carried out by all stakeholders in the broadcasting industry. TRAI had carried out a similar exercise for framing the rules of spectrum sharing and spectrum trading in the telecom sector, which was widely accepted and proved beneficial for all stakeholders.