

Telecom Regulatory Authority of India



Recommendations

on

Sharing of Infrastructure

in Television Broadcasting Distribution Sector

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CHAPTER-I

Introduction

- 1.1 The Television (TV) broadcasting sector in India is witnessing an attractive growth with increase in variety as well as number of channels and TV broadcasting distribution networks. The sector, which started with only 5 channels in the year 1991, today has more than 800 channels with over 600 million viewers. The revenue of television broadcasting sector was at INR 542.2 billion in 2015 and is expected to reach INR 1098 billion in 2020 with an expected Cumulative Average Growth Rate (CAGR) of 15.1% With around 180 million TV households, the country is the third largest TV broadcasting sector in the world.
- 1.2 The TV broadcasting services include provisioning of satellite TV channels by broadcasters and distribution of TV channels to subscribers by distribution platform operators (DPOs) and local cable operators (LCOs) through various types of distribution networks and systems.
- 1.3 Each type of distribution network and system requires installation, operations, and maintenance of physical infrastructure including equipments and communication networks. These include passive infrastructure assets, such as physical sites, buildings, power supply and active infrastructure assets such as antennas, transmission systems, Head-end, Earth station, and intangible assets like licenses, rights of way etc. In addition to these assets, network infrastructure relies on connectivity, including the lease of bandwidth capacity (optical fibre network or satellite transponders) and retail customer services such as billing, grievance redressal system etc.
- 1.4 The aggregation and distribution of TV channels is carried out using different distribution technologies like Cable TV, Direct to Home (DTH), Head-End in the Sky (HITS), Terrestrial TV and Internet Protocol TV (IPTV). Except analog terrestrial TV network, all other distribution networks are multi-channel TV distribution networks. The value chain for broadcasting services consists of the broadcasters i.e. satellite TV channel providers; DPOs like the DTH/ IPTV/ HITS/ Multi System Operators (MSOs), and the LCOs. Figure 1 shows a snapshot of TV broadcasting services as on 04.01.2017.

¹ Source: FICCI-KPMG-M&E-Report-2016.

Sl.	Details	Qty	Remarks
1	Number of permitted satellite TV channels	899	As on 31.12.2016
2	Number of MSOs	1130	Including provisional registered MSOs
3	Number of DTH operators	7	6 Pay DTH operator 1 Free to view DTH operator
4	Number of HITS operators	2	
5	Number of LCOs	60,000 approx	Estimated

Figure 1: Snap shot of TV broadcasting sector

- 1.5 Sharing of infrastructure in TV broadcasting distribution network refers to the shared use of distribution networks and services for delivery of broadcasting services to subscribers. One approach of infrastructure sharing could be where two or more DPOs join hands on voluntary basis to provide TV broadcasting services to consumers. While another approach could be where distribution network is established, operated, and maintained by one DPO, and another DPO delivers services to its subscribers by using the network of earlier DPO on pay and use basis. Unlike in the case of telecommunication networks, parallel establishment of TV broadcasting distribution networks do not lead to capacity addition in the distribution network space. Sharing of infrastructure in TV broadcasting distribution network can reduce the cost per subscriber of network establishment, operations and maintenance, accelerate geographical expansion of services, and reduce the rural-urban digital divide.
- 1.6 In this age of Information Communications Technologies (ICT), when the services are configured in the cloud, infrastructure sharing among multiple service providers can ultimately lead to an ecosystem, wherein the network operator can focus on efficient operations and maintenance of distribution networks and associated systems to ensure maximum uptime and optimal utilization of available distribution

network capacities and the DPO providing services using the network of another DPO can focus on servicing the need of the consumers. The service provider's focus on consumers may help in improving the delivery of services and speedy redressal of consumer grievances.

- 1.7 Ministry of Information & Broadcasting (MIB), through a reference dated 29th April 2016 [Annexure–I], requested TRAI to examine the issue of the infrastructure sharing by MSOs, LCOs and HITS operators in consultation with all the stakeholders of the broadcasting & Cable TV sector. The MIB sought recommendations of TRAI under Section 11(1) (a) of TRAI Act, 1997 on the amendments that may be required in the Cable TV Networks (Regulation) Act 1995 and Rules made there under to facilitate the infrastructure sharing. MIB in the above said reference emphasised on following:
 - (i) The recommendations are acceptable to all stakeholders.
 - (ii) No HITS operator/ Multi System Operator (MSO)/ Local Cable Operator (LCO) is able to transmit any channel of any Broadcasters without an appropriate interconnection agreement with the broadcaster/ MSO/ HITS operator, as the case may be.
 - (iii) No MSO/ LCO is able to transmit or re-transmit any channel, including local and own channels, without encryption.
 - (iv) Authorized officers of the State Governments and their representatives are also able to access the systems of MSOs/ LCOs to ensure that there are no violations of the provisions of the Cable Act/ Rules and TRAI Regulations and also to cross-check the reported number of subscribers/ total collection from subscribers for the purposes of entertainment taxes etc.
 - (v) Accountability of MSOs/ LCOs/ HITS operators is ensured with reference to the SMS, their respective subscribers and to the respective state Governments and local administration as well as to the Central Government on all relevant aspects.
- 1.8 TRAI, on 23rd May 2016 issued a pre-consultation paper with an objective to solicit stakeholders' views on sharing of infrastructure in TV broadcasting distribution

sector so that all likely issues can be identified before carrying out detailed consultation. In response, a total of, 17 comments were received from stakeholders. Thereafter, a Consultation Paper (CP) was issued on 21.09.2016 in order to seek comments of stakeholders on the issues identified during pre-consultation process. In response to the CP, total 23 comments were received from stakeholders. An open house discussion was also held in Delhi on 19th December 2016 to take insight views of the stakeholders on the issues involved.

- 1.9 After analysis of the comments and counter-comments emanated from the written submissions of the stakeholders on the CP, views expressed in the open house discussions and internal analysis, the Authority has finalized these recommendations. Chapter 2 discusses various issues, relating to sharing of infrastructure in television broadcasting distribution networks, their analysis and recommendations. Chapter 3 summarizes the recommendations.
- 1.10 The objective of these recommendations to the Central Government is to create a policy environment for facilitating sharing of infrastructure in TV broadcasting distribution sector *on voluntary basis*. Infrastructure sharing would help in enhanced availability of distribution network capacities. As sharing implies joint use of a resources by multiple users, the policy so framed would result in reduction in Capital Expenditure (CAPEX) and Operative Expenses (OPEX) for the service providers thereby bringing down the price of broadcasting services to subscribers. In addition, it would lower the entry barriers for new service providers and provide more space for niche channels necessary for satisfying the diverse needs of general public to reach targeted customers. Lowering of entry barriers in the distribution space could propel competition in the market and more choices to consumers due to presence of multiple operators in a given territory.

CHAPTER-2

Sharing of infrastructure

TV broadcasting distribution networks

A: Need for facilitating sharing of infrastructure in TV broadcasting distribution network services:

- 2.1 Rapid development of new-generation of services demands up-gradation of the distribution network infrastructure to meet customer requirements. Infrastructure sharing is a process wherein competitors join hands to share their resources for faster expansion in terms of the geography as well as the capacity, and to lower the cost of servicing their subscribers. This provides scope for the service provider to invest in new technologies to provide better services. The decisions relating to sharing of infrastructure are usually commercially driven process rather than mandated process. The benefits of infrastructure sharing are well recognised by the industry in telecommunication market as it lowers the cost of network deployment and maintenance.
- 2.2 The basic character of television channel distribution network is to downlink the signals of satellite television channels at a central location and disseminate the same to multiple subscribers in broadcast mode. In channel distribution, increase in number of service providers distributing channels does not mean increase in carrying of number of channels to subscribers. In other words, in all likelihood the competitive distributors would be carrying almost the same channels in particular geographic region as the demands of subscribers of that region would be similar. Keeping in view of this character, infrastructure sharing will have number of benefits in distribution of television channels. Presently, though the sharing of infrastructure is not specifically prohibited in broadcasting distribution networks, however certain conditions in the registration, guidelines or relevant rules are acting as deterrent for service providers to act in this direction.
- 2.3 In response to the CP, most of the stakeholders were in agreement with the requirement of infrastructure sharing in TV broadcasting sector, if they are voluntary and commercially driven. They stated that the sharing would reduce the cost of their operation. However, some stakeholders were apprehensive that infrastructure sharing

in broadcasting TV distribution space as proposed in the CP may result in monopolistic or oligopolistic situation at network operator level. They stated that the large service providers may like to hold on to the network that they have built and may not offer their network to other small players or new players wishing to enter the market.

2.4 Enabling policies for sharing of infrastructure in TV broadcasting distribution sector would not only encourage service providers to amend their business processes to reduce the cost of operations but will enhance scope to invest in new technologies. The sharing of infrastructure would enable entry of new service providers in the market with reduced investment, paving way for healthy competition in the sector. The apprehension of some stakeholders on competition is not tenable as the service providers, even after sharing, will provide the services independently maintaining different operation, providing different packages as per subscriber choice. Further, the responsibility of compliance of the relevant Act's/ rules/ regulations/ license/ orders/ directions/ guidelines would continue to be of each distributor of TV channels independently. Therefore, the Authority is of the view that the Central Government should encourage sharing of infrastructure, in TV broadcasting distribution networks on voluntary basis.

2.5 Accordingly, the Authority recommends that:

- a. The Central Government should encourage sharing of infrastructure, wherever technically feasible, in TV broadcasting distribution network services, on voluntary basis. While sharing the infrastructure with another distributor of TV channels, the responsibility of compliance to the relevant Acts/ rules/ regulations/ license/ orders/ directions/ guidelines would continue to be of each distributor of TV channels independently.
- b. Each distributor should undertake to ensure encryption of signals and addressability of subscribers in all circumstances; and to provide access of the all the systems and the networks, used to provide broadcasting distribution network services, to the concerned broadcasters for the purpose of audit as per the regulations and the authorized officers of the Governments and their representatives whenever demanded.

- 2.6 After the policy decision is taken by the Central Government on sharing of infrastructure in television broadcasting distribution network services sector and necessary amendments in the relevant rules/ guidelines/ licenses, necessary amendments in the regulations/ orders notified by the Authority shall be incorporated.
- 2.7 In order to facilitate infrastructure sharing in various distribution platforms, various scenarios of infrastructure sharing in each distribution segment such as Cable TV, HITS and DTH need to be examined from the point of view of addressability, relevant provisions in the Act/rules/guidelines, and accountability of service provider in providing subscription data to broadcasters and relevant government authorities. These issues are discussed below.

B: Infrastructure sharing in Cable TV segment:

- 2.8 Cable TV networks are one of the primary modes for distribution of TV channels in India. As per an estimate, there are over 100 million Cable TV households in the country. Pursuant to the decision of the Central Government, the digitisation was carried out in Cable TV networks in the country in phased manner. It is now at the edge of its completion.
- 2.9 In digital addressable Cable TV distribution, a Multi System Operator (MSO) downlinks signals of satellite televisions of channels of various broadcasters, aggregate them and retransmit same to subscribers either through its own cable network or provides to Local Cable Operator (LCO) who further distributes to subscribers.
- 2.10 Thus, the provision of broadcasting service through Digital Addressable Cable TV System (DAS) to subscribers involves typically following infrastructure elements:
 - (i) Head-end consisting of a number of dish antennas, for downlinking of signals of satellite TV channels of various broadcasters, and digital systems for processing and trans-modulation of signals;
 - (ii) Conditional Access System (CAS) for encryption of TV signals;
 - (iii) Subscriber Management System (SMS) for authorisation, generation of subscription reports, billing of subscribers etc;
 - (iv) Hybrid Fibre and Coaxial (HFC) cable network for transmission of signals;
 - (v) Customer premises equipment (STB) i.e. a Set-Top-Box

- 2.11 Operations of the Cable TV networks are governed by the Cable Television Networks (Regulation) Act 1995 and the Cable TV Rules made there under. The Cable TV Rules prescribe procedure for registration of MSOs and LCOs. The head-end is an important infrastructure facility where the signals of TV channels are down-linked and processed for further retransmission through HFC cable networks to the subscribers. As per the existing terms and conditions for the MSO registration, the MSO is required to set up an independent digital head-end and provide digital addressable cable TV services from his head-end. Further, the Rule 13 (3) of the Cable TV Rules, 1994, as amended also prescribes that every MSO shall setup and operationalize its SMS for ensuring efficient and error-free service to the subscribers by recording and providing individualized preferences for pay channels, billing etc. The current guidelines for registration of an MSO with MIB as per the Cable Television Networks Rules, 1994, as amended, are attached here as Annexure-II. The Cable TV Act and the Rules made there under do not explicitly prohibit infrastructure sharing by MSOs.
- 2.12 The infrastructure setup by an MSO can be shared with other MSOs operating in that geographical area to optimally utilise it and share the associated costs. The transport stream of channels formed at head-end after processing of signals of TV channels can also be shared subject to necessary authorization (for pay channels) from the broadcasters. For example, an MSO who provides channel in a small town might prefer to take services of another MSO head-end nearer to the service area rather than carrying channels on long distance from its own head-end. Enabling of infrastructure sharing, would open up several options to MSOs to design their networks efficiently and reduce the dependency on creating physical infrastructure for providing Cable TV services. Enabling such sharing will reduce the duplication of efforts especially when, in a geographic region, most of the TV channels carried on different MSOs networks are common. It would also help in increasing the reach of Cable TV networks in new areas, where presently, the same may not be economically viable.
- 2.13 As per the existing terms and conditions of the MSO registration, the requirement of setting up of an independent head-end and associated systems necessitates huge investment. Till date more than 1100 MSOs have taken registration from MIB for providing Cable TV services through DAS in the country. The number is likely to grow in future. Many of these are small and medium size businesses which may not

be willing or it may not be economically viable for them to invest in setting up of individual head-end as their service area may be limited or expected number of subscribers may be small. Such MSOs can utilize the benefit of sharing of infrastructure, as it lowers their investment and cost of operations.

- 2.14 In the CP, the issues relating to sharing of infrastructure in the Cable TV sector were discussed in detail. Most of the stakeholders supported the idea of infrastructure sharing, on voluntary basis, in the Cable TV sector. They acknowledged the fact that sharing of infrastructure will reduce the transmission and other costs of MSOs. Some MSOs also opined that decrease in capital cost due to sharing of infrastructure will help them to invest in better technologies. As per them, increased competition due to lowering of entry barriers will result in better services and more choice to the subscribers and it will help in standardization of the networks thus reducing conflicts between service providers.
- 2.15 On sharing of head-end & transmission networks in Cable TV services, a broadcaster was in agreement that infrastructure sharing among MSOs will improve quality of service as they would get choice of opting better technology and equipment rather than investing in low quality equipment to save its cost. Another broadcaster opined that due to operational, commercial, regulatory and technical issues, infrastructure sharing should not be recommended. While another broadcaster supported the idea of infrastructure sharing as it would reduce CAPEX and OPEX and also encourage effective competition in the market but meanwhile it shall be ensured that no specific stakeholder is able to misuse the same to its advantage.
- 2.16 Regarding the amendment that may be required in the Cable TV Act / Rules to pave way for sharing of infrastructure on voluntary basis, one stakeholder stated that no major change would be required in the Cable TV Act. Some stakeholders were of the view that the condition for setting up of an independent digital head-end of his own should be removed from the letter of registration issued to the MSOs. Similarly, as per the stakeholders, the interconnection regulations should allow MSOs to provide services through their own Head-end or through shared Head-end and the requirement for operationalization of SMS by individual operator should be accordingly amended.
- 2.17 The Authority has carefully examined the issues relating to sharing of infrastructure in Cable TV sector. In a Cable TV network, transmission or re-transmission of signals of

television channels is done using a digital modulation technique known as Quadrature Amplitude Modulation (QAM). A Cable TV network has a capacity of as many as 105 QAM streams [47MHz-860 MHz] where depending upon compression scheme deployed and QAM constellation used, signals of 10 to 15 SD TV channels per QAM stream can be transmitted through cables. Thus, theoretically, a Cable TV network has capacity to transmit signals of around 1050 to 1575 TV channels.

- 2.18 It is observed that in a particular market, most of the satellite TV channels are common across the operators. Therefore, there is a scope for better utilization of available infrastructure. The transport streams of common TV channels can be shared by multiple MSOs using simulcrypt mode of encryption. The head-end infrastructure utilized for downlinking and creation of set of transport streams of common channels can also be shared by multiple service providers. In addition to the common channels, there may be a requirement for re-transmission of channels unique to a specific operator. Re-transmission of such transport streams of specific channels can be done by using capacities, which remains vacant after transmitting signals of common TV channels.
- 2.19 The Authority is conscious of the fact that many times, expansion of distribution networks capacities is constrained due to limited availability of resources. It is also a fact that, parallel establishments of distribution systems and networks in the broadcasting sector do not lead to addition of capacity. If sharing of Head-end & transport streams, on voluntary basis, is encouraged, then due to pooling of available resources with service providers, faster expansion of distribution networks would be possible. The Authority is of the view that sharing of head-end used for Cable TV services and transport streams transmitting signals of TV channels, among MSOs, will boost the distribution network capacities, reduce the cost of operations, and improve diversity and quality of broadcasting services.
- 2.20 It is necessary to ensure that the pay TV channels are only distributed after entering into interconnection agreement with the concerned pay broadcasters. Therefore, the Authority is of the view that an MSO willing to share its infrastructure with another MSO should ensure that the latter MSO has valid written interconnection agreement with concerned broadcasters for distribution of TV channels to the subscribers.

2.21 Possibility of sharing other vital infrastructure such as CAS and SMS is similar for all type of distribution platforms. Hence the same is separately dealt from Para 2.61 onwards. The key issues in sharing the head-end and the transport stream are how to address the concerns of broadcasters in respect of disconnection of signals of TV channels of defaulting distributors and identification of pirates in such sharing environment. These issues are also being common to other types of distribution networks, so the same have been deal separately from Para 2.77 onwards.

2.22 Accordingly, the Authority recommends that:

- a. On voluntary basis, sharing of head-end used for Cable TV services & transport streams transmitting signals of TV channels, among MSOs, should be permitted.
- b. The MSO, willing to share its transport stream of TV channels with another MSO, should ensure that the latter MSO has valid written interconnection agreements with concerned broadcasters for distribution of pay TV channels to the subscribers.
- 2.23 The MSO being able to share infrastructure with either with an MSO or HITS operator (explained in subsequent section), on voluntary basis, it is noted that certain amendments in the terms and conditions of the registration of MSO would be required.
- 2.24 Accordingly, to enable sharing of head-end used for Cable TV services, the Authority recommends that the MSO registration condition regarding 'having an independent digital head-end of his own and provide digital addressable cable services from his head-end' should be suitably amended so as to allow sharing of head-end.

C: Infrastructure sharing in HITS platform:

2.25 In HITS, signals of individual satellite TV channels are down-linked at a central facility and again uplinked in the form of transform stream of multiple TV channels to a satellite after processing and encryption of signals. Cable operators can downlink signals of such transport streams using single antenna and transmits to subscribers. Thus HITS systems are similar to DAS except to the fact that in case of HITS, the

signals of TV channels are transmitted to cable operators using satellite in place of optical fiber network used by MSO for the purpose. A HITS network's area of coverage spans whole country, whereas the coverage of a digital Cable TV network is generally confined to a specific geographical area.

- 2.26 For delivery of signals through HITS network, the following infrastructure elements are required:
 - (i) Transponder space on a C/Ku band Satellite to establish virtual Head-end;
 - (ii) Earth Station for down-linking of signals of satellite TV channels and uplinking the encrypted transport stream of channels to a C/Ku band Satellite for further distribution to cable operators;
 - (iii) Conditional Access System (CAS) for encryption of TV signals;
 - (iv) Subscriber Management System (SMS) for authorisation, generation of subscription reports, billing of subscribers etc;
 - (v) A node, at cable operator premises, for downlinking and trans-modulation of signals;
 - (vi) Hybrid Fibre and Coaxial (HFC) cable network for transmission of signals to subscribers;
 - (vii) Customer premises equipment (STB).

The figure 2 shows schematic diagram of a HITS platform.

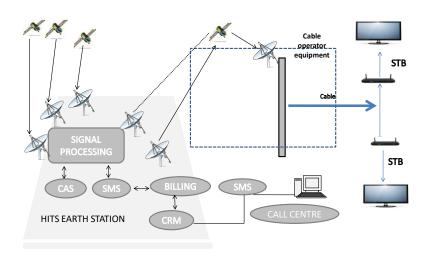


Figure-2: Schematic diagram of a HITS platform

- 2.27 Policy guidelines for HITS operators in India were issued by MIB. The HITS services are allowed in both C & Ku-band for downlinking & distribution. Before starting HITS operations in India, a company is required to obtain license/ permissions from MIB, Wireless Planning and Coordination (WPC) wing of Department of Telecommunications (DoT), Network Operation and Control Centre (NOCC) of DoT, Department of Space (DoS) etc. The policy guidelines for providing HITS broadcasting services are attached at Annexure-III.
- 2.28 In the said guidelines, infrastructure sharing is envisaged with MSO. The guideline describes two models in which a HITS operator can provide broadcasting services. The relevant portion of the guideline reads as under:-

"After obtaining a HITS license from the Ministry of Information and Broadcasting, the HITS operator can himself contract with different broadcasters for buying the content, aggregating the same at an earth station and then uplinking with his own encryption to a satellite hired by him. The uplinked channels can then be downlinked by the cable operators using a dish antenna for onward distribution through last mile conventional cable network to the TV homes. In this model, the HITS operator works like a conventional MSO, except that virtually the head-end is in the sky, instead of being located on ground.

The HITS operator can also decide to merely provided passive infrastructure facilities like transponder space on satellite, earth station facilities and the provisions for simulcrypting/multicrypting of channels aggregated by different MSOs with different encryption systems to one or more MSOs or to a consortium of cable operators / MSOs desirous of uplinking TV channels to his HITS satellite for downlinking and further transmission to the TV homes by the cable operators across the country. The HITS operator in this case need not contract with the broadcasters for content. He only enters into contracts with one or more MSOs or consortium of cable operators desirous of uplinking their aggregated channels from HITS earth station(s) to the HITS satellite."

- 2.29 In the CP, on the issue of sharing of infrastructure in HITS, various models for HITS operations, particularly a hybrid model of the above mentioned two models for sharing of infrastructure between HITS operator and MSOs were presented to the stakeholders for their comments.
- 2.30 In response, most of the stakeholders supported such infrastructure sharing on voluntary basis. Some stakeholders were of the view that HITS Guidelines should be modified to explicitly permit a HITS platform to operate under any model of infrastructure sharing. They acknowledged the fact that sharing of infrastructure will reduce the transmission and other costs of HITS operator and MSOs. Some stakeholders also opined that reduction in capital cost from shared infrastructure will help MSOs / HITS Operator to invest in better technologies. As per them, it will help in standardization of the networks thus reducing conflicts between service providers.
- 2.31 One stakeholder suggested a method of sharing of infrastructure wherein a HITS platform could simply act as a delivery platform of broadcaster's channels to existing head-end of MSOs. This Model essentially replaces the need for the broadcaster to give out its own STBs/IRDs to these MSOs, as these will be replaced now by HITS IRDs. This Model therefore acts simply as an extension of the broadcaster's own transmission mechanism to the MSOs, who would anyway receive the content directly from the broadcaster, decrypt it using the broadcasters' own IRDs/STBs, re-encode it before re-encrypting it for onward delivery to subscribers. To have control, to activate/deactivate their channels, send fingerprints for anti-piracy etc. a facility can be provided to broadcasters through a specialised secure portal that enables the broadcaster full control over each of its signals separately in each MSO head-end, thereby not requiring the broadcaster to request any action from the HITS provider on their behalf.
- 2.32 This stakeholder also opined that HITS providers can uplink each broadcaster's channel after simulcrypting signal with one or more CAS. In this scenario an MSO can either use the HITS provider's own CAS for encryption, or the MSO can provide its own CAS which can be simulcrypted on the HITS signal. A further extension in this can exist to uplink only those channels that a specific MSO might want to deliver to his customers, which may not be in common with other MSOs. In this scenario whilst the majority of channels may be common to multiple MSOs, some channels may be specific to an operator. This ensures maximum flexibility to MSOs to select

their channels for onward distribution. The stakeholder stated that if a HITS provider uplinks each MSO's encrypted streams of signals (made of TV channels) up to a satellite separately for each MSO then this model goes against the philosophy of infrastructure sharing and results in unnecessary wastage of satellite transponder space to uplink the same channels multiple times. However, this may be useful for some MSOs who may want this service on the basis of (a) that they have additional channels which are currently not being carried by the platform, (b) would like to uplink their own created programming services, or (c) they want a differentiated service running on separate transponders.

- 2.33 One broadcaster stated that HITS by itself is designed as a platform for infrastructure sharing. The broadcaster stated that on a voluntary basis HITS operators should allow broadcasters to also simulcrypt their channels on the HITS system. By this mechanism they will be able to enable/ disable MSOs based on their own SMS and payment obligations.
- 2.34 On analysis of the comments received from stakeholders, it appears that there could be various models in which HITS platform can be shared. At least, four specific models, which clearly emerge from the consultation process are as below:
 - I. In the first model, the HITS operator enters into agreement with broadcasters for distribution of TV channels to its linked cable operators. In this model, the HITS operator works like a conventional MSO, except that virtually the Headend is in the sky, instead of being located on ground.
 - II. In the second model, the HITS operator merely provides its infrastructure services to one or more MSOs desirous of uplinking their encrypted streams of TV channels to satellite for further transmission to their linked LCOs distributed across the country. Such infrastructure services would normally consist of earth station on ground and transponder space on *satellite*. In this model the HITS operator acts as an infrastructure service provider only.
 - III. In the third model, which is a hybrid of the first two models, on voluntary basis, the HITS operator may share encrypted transport streams of TV channels, obtained through agreements signed with broadcasters under first model, with other MSO in simulcrypt mode, as well as the HITS operator may

- provide its infrastructure services to that MSO for uplinking of encrypted transport streams of TV channels, which are unique for that particular MSO under second model. This would ensure the efficient use of satellite resources.
- IV. In the fourth model, the TV broadcasters, individually, using the earth station of HITS operator, may uplink the encrypted transport streams of their own TV channels, to the satellite transponder space available with the HITS operator, for further distribution of the same to linked MSOs/ LCOs with the HITS operator and various other MSOs who have entered into interconnection agreements with such TV broadcasters directly.
- 2.35 In all the four models discussed above, the function of uplinking of encrypted streams of channels to a satellite is part of HITS operations. While the first model of HITS operations enable end to end distribution of TV channels, the second model use HITS platform as a transmission system to connect LCOs distributed across the country. However, in the second model, the use of scarce satellite transponder capacity is duplicated without any specific advantage to stakeholders in the value chain. It appears that the third (hybrid) model ensures efficient use of scarce resources as it combines the features of both i.e. the first and the second model. It may be a win-win model for stakeholders in the value chain if the necessary techno-commercial arrangements and agreements are put in place. In the fourth model, the HITS platform is utilized as a teleport to uplink the signals of TV channels by the broadcasters for distribution to cable operators linked with the broadcasters as well as HITS operator. However, in this model, the available transponder capacity may not be efficiently utilized as a broadcaster would require specific number of channels which can utilize one or more transponders capacity. This arrangement will necessitate that, irrespective of demand of certain channels, each HITS operator carry all channels of the broadcasters, therefore, it may limit the available space on HITS platform for channels of small and medium sized broadcasters. Since, an established practice of uplinking of channels in C band from teleport exist, use of HITS for such purpose may not be appropriate.
- 2.36 The maximum utilization of the HITS platform (i.e. virtual Headend setup in transponder space on a Satellite and earth station setup for processing and encryption of signals of TV channels, and uplinking of the same to virtual Headend) can be

ensured if the policy guidelines for HITS operators permit flexible use of HITS platform and sharing of transport streams transmitted by HITS platform with the clear stipulation that the signals of HITS platform cannot be directly distributed to subscribers and such signals shall be distributed to subscribers through registered cable operators only. The Authority is of the view that the service providers should be allowed to share the HITS platform, in flexible ways, for distribution of TV channels provided that the encryption of signals, addressability, and liabilities are not compromised. Further, to ensure efficient use of scarce satellite resources, the Authority is also of the view that sharing of transport streams transmitted by HITS platform, among HITS operator and MSOs, should be permitted with the necessary arrangements put in place for protecting the rights of individual service providers. Such arrangements can clearly be stipulated in the interconnection agreements signed between service providers. Further details of such arrangements have been discussed in the later paragraphs of these recommendations. As per the policy guidelines, the HITS services are permitted in C/Ku band therefore the Authority is of the view that HITS platform should not be used as teleport for uplinking of satellite channels as uplinking of satellite channels are permitted only in C band under separate guidelines.

2.37 Regarding the sharing of other vital infrastructure such as CAS, SMS and providing control to broadcasters on shared channels, the same have been dealt in separate section in the later paragraphs as these issues are common across all type of distribution platforms.

2.38 Therefore, the Authority recommends that:

- a. HITS operators and MSOs should be allowed to share the HITS platform, on voluntary basis, in flexible ways, for distribution of TV channels provided that the signals of HITS platform are distributed to subscribers through local cable operators only and the encryption of signals, addressability, and liabilities are not compromised.
- b. The sharing of transport streams transmitted by HITS platform, between HITS operators and MSOs, should be permitted.
- c. The HITS platform should not be allowed to be used as teleport for uplinking of satellite TV channels.

- d. The HITS operator, willing to share its transport stream of TV channels with an MSO, should ensure that such MSO has valid written interconnection agreements with concerned broadcasters for distribution of pay TV channels to the subscribers.
- 2.39 To enable sharing of the HITS platform and transport streams transmitted by HITS platform, the Authority recommends that the guidelines for providing HITS services should be suitably amended.

D: Infrastructure sharing in DTH services:

- 2.40 After removal of prohibition on reception and distribution of television signals in Ku band, the Government, on 15th March 2001, made guidelines for obtaining license for providing DTH broadcasting services in India. The service providers are given DTH license under Section 4 of the Indian Telegraph Act 1885, and the Indian Wireless Telegraphy Act, 1933 to establish, maintain and operate DTH Platform to provide DTH broadcasting services in the country. These guidelines are attached as Annexure-IV.
- 2.41 For delivery of signals to the subscribers through DTH platform, the following infrastructure is required:
 - (i) Transponder space on a Ku band Satellite;
 - (ii) Earth Station for down-linking of signals of satellite TV channels and uplinking the stream of channels to Ku band Satellite for direct reception by subscribers:
 - (iii) Conditional Access System (CAS) for encryption of TV signals;
 - (iv) Subscriber Management System (SMS) for authorisation, generation of subscription reports, billing of subscribers etc;
 - (v) Customer premises equipment.
- 2.42 As mentioned in the chapter-1, there are 7 DTH operators providing DTH broadcasting services in the country. DTH sector is one of the largest users of satellite capacities. With increase in demand for HD channels, the requirement for satellite transponders is also increasing day by day. Availability of adequate number of satellite transponders for growth is always a concern of DTH operators. Currently each DTH operator uplinks the signals of streams of TV channels to different

- satellites located at different orbital slots. 77 transponders are in operation by existing 7 DTH operators. Each DTH operator transmits 200 to 400 SD TV channels approximately and around 50 HD channels on its platforms.
- 2.43 It is therefore evident that DTH industry is one of the largest users of satellite capacity, majority of common channels are replicated across multiple platforms. Not only that it creates capacity constraints but also it is a significant cost for each operator, thus making the services expensive. The existing satellite transponders used for DTH services are spread across the multiple Indian and foreign satellites, with foreign satellites carrying nearly 75% of these services. One of the ways in which the satellite capacity constraint can be addressed, and simultaneously the fixed costs relating to leasing/hiring of satellite transponders can be distributed among more than one operator, is the sharing of transport stream of channels allowed on voluntary basis.
- 2.44 The basic premise is that there could be one set of transponders which could carry transport streams of channels, which are common among operators sharing the infrastructure, under simulcrypt mode with same or different CASs used by each such operator. In addition, each DTH operator may also have a requirement of distribution of channels which may not be common. Platform specific channels/ services, unique for each DTH operator, can be multiplexed into separate streams and transmitted using additional transponder space on the same or adjoining satellites.
- 2.45 In this scenario, enabling sharing of transport streams of common channels by two or more DTH operators would definitely reduce the requirement of satellite transponders, and therefore would reduce the fixed cost of operations. Such streams can be uplinked after encryption by same or different CASs as per agreement between the operators.
- 2.46 Further, the DTH licensing guidelines emphasise that the DTH licensee shall not either directly or indirectly assign or transfer its right, in any manner whatsoever, under the license agreement to any other party or enter into any agreement for sub-license and/ or partnership relating to any subject matter of the license to any third party either in whole or in part. Any violation of the terms shall be construed as breach of the license agreement and license of the licensee shall be terminated immediately.

- 2.47 In the CP, the issue of infrastructure sharing in DTH was deliberated in detail. On this issue, in response to the CP, a large number of stakeholders opined that the sharing of multiplexed stream on a transponder on voluntary basis would help in combating the challenge of limited satellite transponder capacities.
- 2.48 A DTH operator stated that common infrastructure sharing amongst DTH Operators could be permitted on voluntary basis. There is no need for bringing in any set of rules, regulations or law for such voluntary sharing by these platforms. However some of the DTH operators were apprehensive that if all DTH operators operate from a single satellite then the services may be jeopardized by a single point of failure. One DTH operator opined that active, passive and spectrum sharing allowed in telecom sector on a voluntary basis without any regulatory intervention can be replicated for the broadcasting sector as well. They mentioned that if there is change in satellite due to infrastructure sharing then there would be a requirement of re-alignment of existing dish antennas (CPE) and two satellites would be required till migration gets completed which remains a huge CAPEX and OPEX challenge. One DTH operator stated that the existing agreements of operators for satellite capacity have different terms & conditions, executed at different dates and for different validity period. Also the License period of each operator is different. Therefore, arriving at an infrastructure sharing agreement would be complex. Ownership for common facility, owning QoS and service/ network uptime responsibilities for common services to all operators will be a huge challenge.
- 2.49 In the CP, the stakeholders were also asked to provide their comments/ views on the specific amendment to the existing guidelines that may be required to enable voluntary sharing of infrastructure in DTH sector. On specific amendments that are required in the guidelines for obtaining DTH License, some stakeholders stated that a company willing to utilize infrastructure of existing DTH operator need not enter into contract with a satellite operator, and it should not require SACFA clearance, DoS clearance etc. as these would have already been taken by the DTH platform that will be shared. Such applicant company seeking license to operate DTH services should produce a copy of the contract entered into with the existing DTH operator with whom it will be sharing the infrastructure, to the MIB, at the time of obtaining the license. However, this should not preclude the Company who is starting operations with shared infrastructure from setting up his own infrastructure during the license

period, should it wish to do so in the future, by getting the necessary site and other clearances as are required by a DTH operator under present guidelines. One DTH operator stated that the Article 12 and 13 of License agreement should be amended as the operator might be sharing transponder space and/or Earth station with another operator.

2.50 The article 12 titled 'WPC Wing's License' and 13 titled 'Commissioning of DTH Platform' of License agreement reads as under:-

"ARTICLE 12 WPC WING'S LICENSE

- 12.1 A separate specific operational license shall be required from the WPC Wing of Ministry of Communications for establishment, maintenance & operation of the DTH platform/facility under usual terms and conditions of that license. Grant of WPC operational license will be governed by normal rules, procedures and guidelines and will be subject to completion of all formalities. As may be prescribed by the WPC Wing, the Ministry of Communication for this purpose, an application shall be made to the "Wireless Advisor to the Government of India, WPC Wing, Ministry of Communications, Dak Bhavan, Parliament Street, New Delhi-110001" in a prescribed application form available from WPC Wing within one month from the date of signing of this agreement.
- 12.2 The Licensee shall obtain clearances/approvals, as may be prescribed or required, from the Wireless Planning Coordination Wing or from the Department of Space.
- 12.3 The Wireless Planning & Coordination (WPC) Wing of the Department of Telecommunication, Ministry of Communication shall issue SACFA clearance to the Licensee as soon as possible after receiving the application the same and shall grant the final Wireless Operational License, after signing of this agreement, subject to fulfilment of the necessary terms and conditions including installation of equipment etc. as may be required by WPC.

- 12.4 The Wireless and Planning Coordination Wing shall have the right to inspect, from time to time, the installation with a view to ensuring conformity with the WPC's license.
- 12.5 The Licensee shall not cause harmful interference to other authorised users of radio spectrum. WPC Wing will have the sole discretion to take practicable and necessary steps for elimination of harmful interference, if any, to other licensed users.
- 12.6 The Licensee shall furnish to the WPC Wing the full technical and operational details of TV channels and other channels proposed to be uplinked through his/her Hub/Teleport in the prescribed format.

ARTICLE-13

COMMISSIONING OF DTH PLATFORM

- 13.1 The Licensee shall establish and complete the installation of the uplink earth station in India including the monitoring facility etc. and commission the DTH Platform within twelve months from the date of issue of the SACFA clearance by the WPC after obtaining wireless operational license and would submit a report to the Licensor in this regard."
- 2.51 One stakeholder stated that, till the stage of getting a letter of intent (LOI) from the Government for DTH services, the applicant company shall be free from all tie ups such as satellite capacity agreements. After the LOI is granted, the applicant can choose any of the existing DTH service providers for satellite capacity, teleport and other infrastructure sharing. Post tie-up with existing service provider, the applicant could be granted the license. Further, the applicant company should also have the option of shifting from one infrastructure provider to another just like the change of teleport is allowed today for broadcasting channels. One stakeholder stated that in the event of sharing of common transport stream on a transponder, the operator who owns the Earth station and responsible for uplinking should be responsible for all content being uplinked, including any that may be uplinked separately for another operator. One DTH operator suggested that the infrastructure sharing policy should enable to

- use the disaster recovery backup Earth station in active mode thus reducing burden on primary head-end.
- 2.52 To enable sharing of infrastructure in DTH sector, it is noted that there would be a requirement to amend certain provisions of existing guidelines for providing DTH broadcasting services. As provided in **Annexure-IV**, obtaining DTH license² involves several steps. Some of the relevant steps are as follows:
 - 1. The applicant Company, desirous of obtaining license for DTH operation in the county, is required to submit an application in the specified format to the Ministry of Information and Broadcasting (MIB) along with the necessary documents including the Lease Agreement with satellite capacity provider and footprint of the satellite on which the transponders are proposed to be hired by the Company.
 - 2. The submitted application is subjected to various clearances including clearance of satellite use with the Department of Space (DoS).
 - 3. After receipt of requisite fee from the applicant company MIB issues letter of intent (LOI) to issue license.
 - 4. The applicant Company needs to obtain SACFA clearance from WPC for frequency allocation.
 - 5. The applicant company is required to submit a bank guarantee of the specified amount to the MIB within one month of SACFA clearance and sign a licensing agreement with MIB.
 - 6. The applicant Company then needs to apply to WPC for Wireless Operational License (WOL) for establishment, maintenance and operation of DTH platform.

²Full text of guidelines for obtaining license for providing DTH Broadcasting Service in India, as notified by MIB in 2007 are available at http://mib.gov.in/WriteReadData/documents/Detailsguidlinesupdated6.11.2007.pdf or http://www.mib.nic.in/WriteReadData/documents/dt8.pdf .

- 7. After receipt of WOL, the Company is required to procure the necessary equipments for establishment of DTH Earth station and other allied equipments for providing DTH broadcasting services in the country.
- 8. The DTH operator need to pay the license fee and royalty for the spectrum used as prescribed by WPC on periodic basis.
- 2.53 The comments of the stakeholders have been examined. The concerns of the stakeholders that permission for sharing of transponder space on a satellite may result into single point of failure are not tenable. On the contrary, sharing of infrastructure, in DTH sector, may encourage DTH operators to put in place more robust and efficient alternate business continuity plans as by sharing they would be saving on CAPEX and OPEX relating to setting up and maintaining independent infrastructure. Further, since the proposal is to enable the sharing of infrastructure in broadcasting distribution network services on voluntary basis, it would be the business decisions of service providers after taking into account the complexities as well as the benefits involved in any such decision.
- 2.54 The Authority is of the view that, to ensure efficient use of scarce satellite resources, DTH operators, who have already set up the earth stations and hired the satellite transponder capacities, and willing to share DTH platform and transport stream of TV channels should be allowed to do so with prior written intimation to MIB and TRAI. However, sharing of transport streams transmitted by DTH platform, among DTH operators, should be permitted with the necessary systems/ arrangements put in place for protecting the rights of individual service providers. Such arrangements can clearly be stipulated in the interconnection agreements signed between service providers. Further details of such arrangements have been discussed in the later paragraphs of these recommendations.
- 2.55 After the policy is put in place for sharing of infrastructure in DTH sector, a company seeking a new license may decide to provide DTH services either:-
 - a. individually setting the infrastructure and hiring satellite transponder capacity;
 - b. by sharing the DTH platform (i.e. transponder space on a Ku band Satellite, earth station setup for processing and encryption of signals of TV channels,

- and uplinking of the same to Ku band satellite), and transport streams of TV channels transmitted by existing DTH operator;
- 2.56 Needless to mention that a company desirous of providing DTH broadcasting services by individually setting up earth station and hiring satellite capacity would be required to follow the existing guidelines for DTH operations. The Authority is of the view that, if a new DTH operator intends to use the existing DTH platform and transport streams of TV channels (i.e. case b), he should not be asked to comply with the conditions relating to hiring of satellite capacity and setting up of earth station. In this case, since the new applicant will be using the existing DTH platform and transport streams of TV channels, there should not be any requirement of clearance of satellite use with DoS, WPC and NOCC because these permission/ clearances/ licenses would have already been obtained by the existing DTH operator. The new applicant, in its place, should be required to provide a copy of commercial agreement entered into by the applicant company with the existing DTH operator for use of the existing DTH platform and transport streams of TV channels. The details of such arrangement would be required at the time of making application.
- 2.57 Further, the Authority is of the view that a DTH operator providing services using the shared infrastructure with another DTH operator, should be allowed to establish, maintain and operate its own DTH platform at a later date, within the license validity period, if he decides so, after following the due procedure.
- 2.58 With respect to the suggestion of the stakeholders that the infrastructure sharing policy should enable use of the disaster recovery site in active mode, the Authority is of the view that the an easier process should be put in place to ensure continuity of services to subscribers. Such processes can be finalised by each operator in advance with the prior approval of licensor and intimate to all concerned in writing, so that disruption time is minimised. One of the way in which it could be ensured is sharing of the main and the disaster recovery site in hot standby mode with the prior approval of the licensor. Regarding the sharing of other vital infrastructure such as CAS and SMS and providing control to broadcasters on shared channels, the same have been dealt in separate section in the later paragraphs as these issues are common across all type of distribution platforms.

2.59 Accordingly, the Authority recommends that:

- a. To ensure efficient use of scarce satellite resources, the DTH operators, willing to share DTH platform and transport stream of TV channels, on voluntary basis, should be allowed to do so with prior written intimation to MIB and TRAI.
- b. To allow a new DTH operator to use the existing DTH platform and transport streams of TV channels transmitted on that platform, the conditions relating to hiring of satellite capacity and setting up of earth station should be amended suitably.
- c. A DTH operator providing DTH services using the shared infrastructure with another DTH operator, should be allowed to establish, maintain and operate its own DTH platform at a later date, within the license validity period, if he decides so, after following the due procedure.
- d. An easier process should be put in place to ensure continuity of services to subscribers in the event of any disaster. One of the way in which it could be ensured is sharing of the main and the disaster recovery site in hot standby mode with the prior approval of the licensor.
- e. The DTH operator, willing to share its transport stream of TV channels with another DTH operator, should ensure that the latter DTH operator has valid written interconnection agreements with concerned broadcasters for distribution of pay TV channels to the subscribers.
- 2.60 To enable sharing of the DTH platform and transport streams transmitted on the DTH platform, the Authority recommends that the guidelines for providing DTH services should be suitably amended.

E: Sharing of CAS & SMS by distributors of TV channels:

2.61 Subscriber Management Systems (SMS) is a system which stores the subscriber records and details of channels or bouquets of channels subscribed by a subscriber, price of such channels or bouquets of channels as defined in the system, the activation or deactivation dates and time for any channel or bouquets of channels, log of all actions performed on a subscriber's record, invoices raised on each subscriber and the

- amounts paid or discount allowed to the subscriber for each billing period. In essence, the SMS runs Customer Relationship Management (CRM), authorization, billing and accounting applications, which are used to manage the system efficiently and implement the choice of subscribers.
- 2.62 The Conditional Access System (CAS) is a key component for TV broadcasting distribution network services as it is used for implementing addressability. CAS secures the operator's investments by encrypting the signals and allowing TV broadcasting services to authorized users only. Generally, SMS and CAS are installed in the premises where the head-end is installed.
- 2.63 The possibility of sharing of CAS and SMS was discussed in the CP. On this issue, most of the stakeholders expressed that sharing of infrastructure should also include CAS, SMS, Call Centre etc. which are expensive and costly to maintain. Some stakeholders argued that since the CAS and SMS are able to identify each MSO individually through the use of an identifier for each STB/ Smart card, sharing of CAS and SMS should be permitted. Some DPOs opined that shared CAS & SMS will help in standardization of processes, allow more transparency and enable even small MSO's to avail benefits of high end CAS & SMS. As per comments of stakeholders, such shared SMS & CAS platforms would also significantly reduce the work for broadcasters for auditing these platforms. Same DPOs also opined that shared CAS would permit interoperability of STBs.
- 2.64 A broadcaster opined that it has to be decided how separate CAS & SMS report shall be generated for each operator. If common CAS and SMS reports are generated for both, then how the amount would be shared between the operators (equally or in a ratio). Another broadcaster commented that allowing DPOs to utilize single CAS & SMS would be in violation of the current licensing requirements of MIB for HITS platform as well as for MSOs.
- 2.65 In the MIB reference, it was emphasized that authorized officers of the State Governments and their representatives should be able to access the systems of MSOs/LCOs to ensure that there are no violations of the provisions of relevant rules/guidelines and also to cross-check the reported number of subscribers/total collection from subscribers for the purposes of entertainment taxes etc. It was also said that, in shared infrastructure, the accountability of service providers will have to be ensured

- with reference to the SMS, their respective subscribers and to the respective state Governments and local administration as well as to the Central Government on all relevant aspects. These issues were also consulted in the CP.
- 2.66 On the aspect of compliance of the rules regarding providing requisite information to the Government authorities, a DPO suggested that to ensure that SMS data remain accessible to the tax assessment authorities and Authorized officers, a provision can be made for generation of automated standardized reports, which would contain all relevant data, to be provided by the DPO having control of the SMS. Format(s) for the reports can be provided by the concerned authorities. The concerned operator, utilizing the infrastructure of another DPO, shall provide a confirmation as to the contents of the reports. Another DPO stated that it should be responsibility of the network operator to get the SMS & CAS configured in a way that the separate reports / logs can be generated for every MSO.
- 2.67 While considering permitting sharing of CAS and SMS, among distributors of TV channels, the Authority is conscious of the fact that the integrity and security of the data recorded in these systems is of paramount importance, as this data forms the basis of all business transactions and the Government's revenue. The Authority is also conscious of the fact that, with the help of latest developments in the information technology sector, virtual systems, specific to each operator, can be created on a common hardware. Such implementations can reduce the cost of operations, improve the reliability of the systems, and provide mechanisms to ensure the integrity and security of the data recorded in these systems. In a way, permitting sharing of common hardware for implementation of the virtual SMS, specific to each operator, would result into improved efficiencies. It would also ensure the generation of separate subscription reports specific to each operator.
- 2.68 The TV broadcasting services provided through digital addressable systems are transparent and verifiable. The parameters for calculating subscription fee and deciding revenue share between service providers are no longer opaque. The number of subscribers availing the services in each network and the details of bills raised for each such subscriber can be easily obtained from the SMS, irrespective of the fact that a SMS is implemented on shared hardware among multiple MSOs or not.

- 2.69 Similarly, sharing of hardware among multiple operators for implementation of CAS applications is possible, as in the shared infrastructure scenario, the transport stream of signals of TV channels is required to be encrypted by more than one operator. Sharing of hardware among multiple operators for implementation of CAS would reduce the cost of operations and simulcrypting of transport streams would facilitate implementation of technical interoperability of STBs.
- 2.70 Since, the service provider ID, network ID and subscriber ID are clearly identifiable, the transparency and verifiability requirements are met in such shared environment. Therefore, the Authority is of the view that distributors of TV channels can share the common hardware for their SMS and CAS applications without losing their individual identity. For ensuring the transparency in the value chain, it is necessary that the details of sharing arrangements are known in advance to the MIB, the Authority, and the concerned broadcasters, so that each stakeholder in the value chain can safeguard its own interest. Further, to ensure the integrity and security of the past data, each distributor should be mandated to maintain the backup of transaction logs and data of the CAS and the SMS, on near real time basis, for at least two years, at any point of time, on a secondary storage device.
- 2.71 As per the requirement under the Cable TV Act, the transmission or re-transmission of channels is to be done using Digital Addressable Systems and therefore, it is the responsibility of service providers to ensure that they remain in compliance of the law, while sharing the infrastructure on voluntary basis. Sharing of infrastructure in any way does not relieve them from the obligation of compliance of the law/ rules/ regulations. As far as ensuring the accountability of MSOs with reference to SMS, to their respective subscribers, to the Government and local administration is concerned, it is observed that the infrastructure sharing in any way do not dilute the compliance of the provisions of relevant laws in place. The Authority is of the view that to allay the concerns of the broadcasters and other stakeholders, each distributor should undertake to provide access of the CAS and the SMS, used to provide broadcasting distribution network services, to the concerned broadcasters for the purpose of audit as per the regulations and the authorized officers of the Governments and their representatives whenever demanded.

- 2.72 Accordingly, the Authority recommends that:
 - a. Distributors of TV channels should be permitted to share the common hardware for their SMS applications. Details of such arrangements should be reported to the MIB, the Authority, and the concerned broadcasters, 30 days in advance.
 - b. Distributors of TV channels should be permitted to share the common hardware for their CAS applications. Details of such arrangements should be reported to the MIB, the Authority, and the concerned broadcasters, 30 days in advance.
- 2.73 The Authority recommends that, each distributor should be made accountable for ensuring the integrity and security of the CAS and the SMS data pertaining to such distributor.
- 2.74 The Authority recommends that, each distributor should maintain the backup of transaction logs and data of the CAS and the SMS, on near real time basis, for at least two years, at any point of time, on a secondary storage device.
- 2.75 The Authority recommends that each distributor should undertake to provide access of the CAS and the SMS, used to provide broadcasting distribution network services, to the concerned broadcasters for the purpose of audit as per the regulations and the authorized officers of the Governments and their representatives whenever demanded.
- 2.76 The Authority recommends that the license/ registration/ permission conditions relating to distributors of TV channels should be amended suitably.
- F: Provisioning of signals of TV channels and sharing of transport streams of TV channels in a shared environment:
- 2.77 In response to the pre-consultation paper, broadcasters had raised the issues of disconnection of signals of TV channels of defaulting DPOs in shared set-up and identification of the networks if the piracy of signals of TV channels occurs. These issues were discussed in the CP. In response, some broadcasters stated that if sharing of head-end is allowed, they would not be able to disconnect signals of the defaulting DPOs as the disconnection of signals would also affect all other DPOs sharing the

- infrastructure. On the question of piracy of signal in shared set up, some stakeholders opined that it would be difficult to identity & block the source of such piracy if a common transport stream is shared among multiple DPOs.
- 2.78 On the aspect of disconnection of signals of the defaulting DPO, some stakeholders stated that when DPOs share a transport stream, the broadcaster can be given a portal which connects directly to the SMS platform installed at the common facility of the primary MSO/HITS or DTH operator. From the portal, a broadcaster can deactivate all STBs related to a specific DPO/ network in case of default. However, it would be required to ensure that the broadcaster is only able to remove his own channels, without affecting other broadcaster's channels. This can be achieved through effective creation of packaging which enables each Broadcaster's channels to be activated / deactivated uniquely and separately at a CAS level. This portal should include the facility for broadcasters to switch off the STBs of the central uplinking platform itself, in the event that it is defaulting. Some stakeholders stated that the portal could be developed to 'talk' to the MSO's own CAS platform also to ensure broadcasters can manage deactivations/activations remotely on their own.
- 2.79 One broadcaster stated that the incumbent operator has to give control of customer messaging and switching off of the channels of defaulting sharing MSO or DTH operator to the respective broadcaster via an application which directly controls the encryption of the respective MSO or sharing DTH operator. Moreover, there should be no recourse to the incumbent DTH operator or HITS operator to switch on the signals pertaining to any broadcaster once they have been switched off. This facility should lie only with the broadcaster who would control such an operation being in compliance of TRAI regulations on notice periods etc. As per some of the stakeholders, 'channel of trust', among stakeholders in the value chain, is of paramount importance and in no case it should be broken to ensure orderly growth of the sector.
- 2.80 On the aspect of identifying piracy, some stakeholders opined that the current day technologies provide enough access & safeguards to the service providers to protect their business interest & minimize revenue loss. There is enough mechanism in place for anti-piracy measures and the same may take care of such activities in shared set up. For common channels, the streams can be simulcrypt with multiple CAS for subscribers of different DPOs. A transport stream of common TV channels encrypted

with single/ multiple CAS, does not in any way affect the security of the broadcaster's own signals from theft or piracy. The operators, while sharing the transport stream, whether using a shared or multiple CAS should provide regular fingerprinting of their STBs. Ideally each operator can use different fingerprinting settings (e.g. different background colours, font colours etc.) to enable a Broadcaster to quickly determine which operator's STB is being used for piracy. As transport stream of common channels would be used, the distributor (a HITS operator, MSO or a DTH operator) should provide support to the broadcaster in helping to identify the pirated STB and coordinate with its DPOs, if required, to ensure that pirated STBs are shut off in a timely fashion. Therefore, fingerprinting & watermarking along with field verification are sufficient for identification of piracy happening by demodulating signals from an active box in sharing.

- 2.81 As mentioned in the preceding paragraphs, sharing of infrastructure and transport streams in TV broadcasting distribution sector helps in improving the efficient use of infrastructure available for distribution of TV services to the subscriber, reducing the cost of operations, and better quality and diversity of services. If the sharing of infrastructure and transport streams of TV channels, on voluntary basis, is allowed then it would be open to the DPO to either set up his own facility to provide the broadcasting distribution services or to share the existing infrastructure of another DPO. Even after implementation of sharing of infrastructure and transport streams in the broadcasting distribution networks services, the requirement of entering into an interconnection agreement, between the broadcaster and the distributor providing services to subscribers, for commercial settlement would continue. However, to provide services to its subscribers, such distributor may utilize the infrastructure and transport stream aggregated by another distributor in sharing arrangement or may establish its own infrastructure. Whatever is the arrangement, within the policy and regulatory framework, the distributor need to declare the same in advance to the broadcasters as well as to the MIB. The following figure shows schematic diagram showing the concept [Please refer figure 3].
- 2.82 For implementation of sharing of the infrastructure and transport streams of TV channels, in right earnest, in the TV broadcasting distribution network services, it is necessary to ensure that the rights of all the stakeholders in the value chain are protected, and the processes are streamlined and simplified. To ensure this, it is

essential that the broadcasters are able to exercise their right of disconnection of signals in case of default of payment or due to any other reason, in terms of the

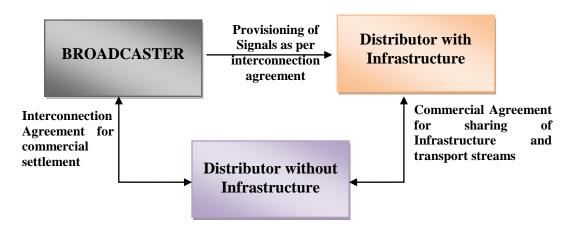


Figure 3: Interconnection arrangement in shared environment

interconnection agreement entered into between the broadcaster and the distributor and the relevant regulations in place. Similarly, it is also essential that the distributor's desirous of providing the broadcasting services to subscribers using the shared infrastructure and transport streams aggregated by another DPO is able to enter into interconnection agreement with the broadcasters in time. Both of these essential requirements can be met when the requisite systems and processes are put in place by the distributor, to the reasonable satisfaction of the broadcasters, who is ready to share its infrastructure on voluntary basis. With the advancements of the IT tools and applications, the Authority is of the view that, it is not difficult to set up such systems and processes where the service providers are provided with adequate access and control to the shared environment. For ensuring the legal enforcement of such processes, the necessary conditions need to be included in the agreements entered into between different service providers. For further clarity, some of the possible scenarios of default by the service providers providing broadcasting TV distribution services through shared infrastructure are discussed below [Please Refer Fig 4].

2.83 The figure 4 provides the general set up in the shared environment where the DPO1 provides infrastructure services to DPO2 & DPO3. Here the DPO1 has the responsibility to implement an ICT system and processes whose control also lies with the broadcasters & sharing DPOs (DPO 2 & DPO 3) to manage the activation & deactivation of signals to LCOs, if any, & subscribers of DPOs.

2.84 In case of default of payment or due to any other reason, by any of the sharing DPOs (DPO2 or DPO3) with the broadcaster, the broadcasters should be provided with suitable access to system & processes to enable them to disconnect the subscribers of the defaulting DPO.

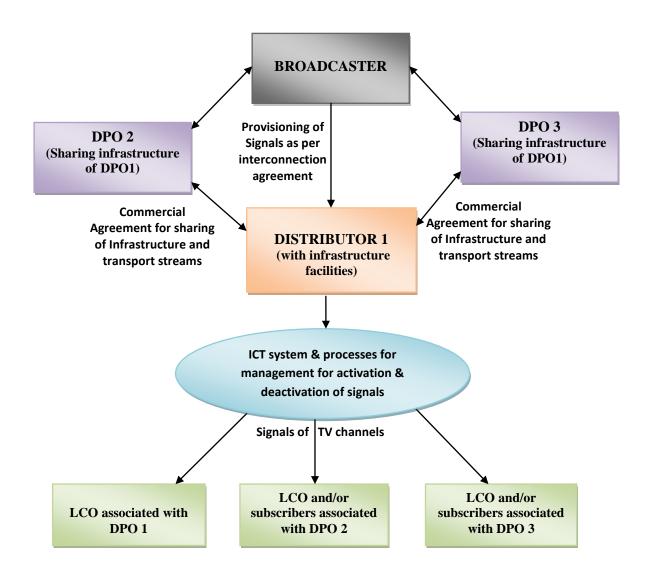


Figure 4: General set up in the shared environment

- 2.85 In case, the DPO1 defaults, then also the broadcasters should be able to disconnect the subscribers of DPO1 while the subscribers of DPO2 & DPO3 should remain unaffected.
- 2.86 In case, there is a default by DPO2 or DPO3 with DPO1, then also through the ICT systems & processes, DPO1 should be able to easily disconnect subscribers of the defaulting DPOs without affecting other subscribers. It is important to note here that it

is the responsibility of DPO2 & DPO3 to ensure that all the regulatory framework prescribed for the DPOs, are complied by them & proper QoS standards, as applicable are maintained.

- 2.87 Also, in case of any default with LCOs or non payment by subscribers, the concerned DPOs should be able to disconnect subscribers of those LCOs or the defaulting subscribers directly.
- 2.88 As DPO2 & DPO3 will be solely dependent on the infrastructure services of DPO1 for distribution of TV signals to their subscribers, the DPOs, while entering into commercial agreement for sharing of Infrastructure and transport streams, shall ensure that proper provisions are in place where the DPO1 shall provide requisite notices for any disruption or discontinuation of its services.
- 2.89 As far as the identification of piracy is concerned, the stakeholders should take necessary technological measures to ensure the security of content. With proper implementation of technical specifications like fingerprinting and watermarking, the service providers can ensure that in the unlikely event of piracy, the responsible network and systems are identified. Such arrangements can be easily verified by broadcasters at the time of initial audit itself.
- 2.90 Therefore the Authority is of the view that, the distributors, sharing the infrastructure and transport streams of TV channels, should put in place necessary technical arrangements for detecting the specific pirate in the unlikely event of any such incidence, and satisfy the broadcaster's reasonable concerns at the time of initial audit itself.

2.91 Accordingly, the Authority recommends that:

a. The distributor, sharing its infrastructure and transport streams of TV channels with other distributors of TV channels, should set up systems and processes which ensure that the broadcasters are able to exercise their right of disconnection of signals in case of default of payment or due to any other reason, in terms of the interconnection agreement entered into between the broadcaster and the distributor and the relevant regulations in place.

- b. For ensuring the legal enforcement of processes put in place by the distributor for protecting the rights of the service providers, the necessary conditions need to be included in the agreements entered into between different service providers.
- c. The distributors, sharing the infrastructure, should put in place necessary technical arrangements for detecting the specific pirate in the unlikely event of any such incidence, and satisfy the broadcaster's reasonable concerns at the time of initial audit itself.

G: Amendments in NOCC & WPC guidelines for enabling infrastructure sharing:

- 2.92 In response to the pre-consultation paper, stakeholders suggested that allowing infrastructure sharing would require changes in the agreement entered by the DPOs with Indian Space Research Organization (ISRO), Network Operation and Control Centre (NOCC), Wireless Planning Commission (WPC) etc. Some stakeholders were of the view that, there may be a requirement of amendment in the policy framework for satellite communication in India so as to allow sharing of transport streams and Earth stations. These issues were discussed in the CP.
- 2.93 It is observed that for setting up of earth station facilities for providing services using DTH and HITS platform, a service provider is required to take necessary permission/ license from Department of Space (DOS), Wireless Planning Commission (WPC) and Network Operation Control Centre (NOCC). Since in the infrastructure sharing, the DPO having infrastructure would be required to take necessary permission/ license from competent authorities hence it appears that there would not be any requirement of change in the existing guidelines of DoS, WPC & NOCC for sharing of infrastructure and transport streams of common TV channels. However the Authority is of the view that, as an abundant precaution, the MIB should take up the issue with DOS, WPC and NOCC if amendment is necessitated to pave way for sharing of Earth station and transport streams of common TV channels by DTH and HITS operators.
- 2.94 The Authority recommends that MIB should take up the issue of infrastructure sharing with DOS, WPC and NOCC to pave away for sharing of transponder capacities by operators and necessary amendments, if any, should be carried out in the licenses/permission letters.

H: Other issues relating to differentiation and personalisation in shared environment:

- 2.95 In response to the pre-consultation paper, some stakeholders raised the issue of differentiation and personalization of services in the shared environment. The issue was discussed in the CP and comments of the stakeholders were sought on new trends like targeted advertisements, provisioning of Electronic Programme Guide (EPG), running of scrolls and User Interface (UI) in the shared setup.
- 2.96 In response, some broadcaster commented that it needs to be addressed that how will the broadcasters get their stipulated LCN on the network of the DPOs and other unaddressable issues in regard to geographically targeted advertisements are yet to be answered. A broadcaster stated that the network operator should be required to ensure infrastructure for channel specific scrolls and process of watermarking every channel for ratings reporting should be simplified.
- 2.97 While one MSO commented that EPG can remain same for all channels and for separate line up of LCN, separate SI (system information) Servers can be used. Packages of channels can be customized for the different distributors from the SMS. They stated that it is also possible to run scrolls & logos in the shared set up. Some other MSOs opined that sharing of infrastructure does not affect personalization. LCN, EPG & channel mapping can be managed at local level. Geographical targeted advertisements can be enabled using different techniques depending upon the CAS/SMS vendor and service providers can book the advertisement and network provider can enable the same on those particular networks.
- 2.98 One DTH operator opined that differentiation & personalization can be done through EPG & UI; targeted Advertisements can be inserted through middleware and geographical targeted scrolls can be enabled in sharing or non-sharing mode. He mentioned that the sharing of infrastructure does not affect this capability. However, a MSO opined that if Infrastructure sharing happens voluntarily, then stakeholders would have to agree to such constraints.
- 2.99 The concerns expressed by the stakeholders have been considered by the Authority while formulating these recommendations. It is observed that new trends like geographical advertisement etc are over the top facilities provided by the service providers for their mutual benefits. The issues relating to differentiation & personalization of services & other advertisement related issues are commercially

driven aspects of the TV distribution services. Moreover, present day technologies can provide solutions for targeted advertisements & logos/scrolls. Therefore, Authority agrees that such issues should be left to the market forces only.

CHAPTER 3

Summary of Recommendations

A: Need for facilitating sharing of infrastructure in TV broadcasting distribution network services:

1. The Authority recommends that:

- a. The Central Government should encourage sharing of infrastructure, wherever technically feasible, in TV broadcasting distribution network services, on voluntary basis. While sharing the infrastructure with another distributor of TV channels, the responsibility of compliance to the relevant Acts/ rules/ regulations/ license/ orders/ directions/ guidelines would continue to be of each distributor of TV channels independently.
- b. Each distributor should undertake to ensure encryption of signals and addressability of subscribers in all circumstances; and to provide access of the all the systems and the networks, used to provide broadcasting distribution network services, to the concerned broadcasters for the purpose of audit as per the regulations and the authorized officers of the Governments and their representatives whenever demanded.

B: Infrastructure sharing in Cable TV segment:

- 2. The Authority recommends that:
 - a. On voluntary basis, sharing of head-end used for Cable TV services & transport streams transmitting signals of TV channels, among MSOs, should be permitted.
 - b. The MSO, willing to share its transport stream of TV channels with another MSO, should ensure that the latter MSO has valid written interconnection agreements with concerned broadcasters for distribution of pay TV channels to the subscribers.
- 3. To enable sharing of head-end used for Cable TV services, the Authority recommends that the MSO registration condition regarding 'having an independent digital head-end of his own and provide digital addressable cable

services from his head-end' should be suitably amended so as to allow sharing of head-end

C: Infrastructure sharing in HITS platform:

4. The Authority recommends that:

- a. HITS operators and MSOs should be allowed to share the HITS platform, on voluntary basis, in flexible ways, for distribution of TV channels provided that the signals of HITS platform are distributed to subscribers through local cable operators only and the encryption of signals, addressability, and liabilities are not compromised.
- b. The sharing of transport streams transmitted by HITS platform, between HITS operators and MSOs, should be permitted.
- c. The HITS platform should not be allowed to be used as teleport for uplinking of satellite TV channels.
- d. The HITS operator, willing to share its transport stream of TV channels with an MSO, should ensure that such MSO has valid written interconnection agreements with concerned broadcasters for distribution of pay TV channels to the subscribers.
- 5. To enable sharing of the HITS platform and transport streams transmitted by HITS platform, the Authority recommends that the guidelines for providing HITS services should be suitably amended.

D: Infrastructure sharing in DTH services:

6. The Authority recommends that:

- a. To ensure efficient use of scarce satellite resources, the DTH operators, willing to share DTH platform and transport stream of TV channels, on voluntary basis, should be allowed to do so with prior written intimation to MIB and TRAI.
- b. To allow a new DTH operator to use the existing DTH platform and transport streams of TV channels transmitted on that platform, the

- conditions relating to hiring of satellite capacity and setting up of earth station should be amended suitably.
- c. A DTH operator providing DTH services using the shared infrastructure with another DTH operator, should be allowed to establish, maintain and operate its own DTH platform at a later date, within the license validity period, if he decides so, after following the due procedure.
- d. An easier process should be put in place to ensure continuity of services to subscribers in the event of any disaster. One of the way in which it could be ensured is sharing of the main and the disaster recovery site in hot standby mode with the prior approval of the licensor.
- e. The DTH operator, willing to share its transport stream of TV channels with another DTH operator, should ensure that the latter DTH operator has valid written interconnection agreements with concerned broadcasters for distribution of pay TV channels to the subscribers
- 7. To enable sharing of the DTH platform and transport streams transmitted on the DTH platform, the Authority recommends that the guidelines for providing DTH services should be suitably amended.

E: Sharing of CAS & SMS by distributors of TV channels:

8. The Authority recommends that:

- a. Distributors of TV channels should be permitted to share the common hardware for their SMS applications. The details of such arrangements should be reported to the MIB, the Authority, and the concerned broadcasters, 30 days in advance.
- b. Distributors of TV channels should be permitted to share the common hardware for their CAS applications. The details of such arrangements should be reported to the MIB, the Authority, and the concerned broadcasters, 30 days in advance.
- 9. The Authority recommends that, each distributor should be made accountable for ensuring the integrity and security of the CAS and the SMS data pertaining to such distributor.

- 10. The Authority recommends that, each distributor should maintain the backup of transaction logs and data of the CAS and the SMS, on near real time basis, for at least past two years, at any point of time, on a secondary storage device.
- 11. The Authority recommends that each distributor should undertake to provide access of the CAS and the SMS, used to provide broadcasting distribution network services, to the concerned broadcasters for the purpose of audit as per the regulations and the authorized officers of the Governments and their representatives whenever demanded.
- 12. The Authority recommends that the license/ registration/ permission conditions relating to distributors of TV channels should be amended suitably.

F: Provisioning of signals of TV channels and sharing of transport streams of TV channels in a shared environment:

13. The Authority recommends that:

- a. The distributor, sharing its infrastructure and transport streams of TV channels with other distributors of TV channels, should set up systems and processes which ensure that the broadcasters are able to exercise their right of disconnection of signals in case of default of payment or due to any other reason, in terms of the interconnection agreement entered into between the broadcaster and the distributor and the relevant regulations in place.
- b. For ensuring the legal enforcement of processes put in place by the distributor for protecting the rights of the service providers, the necessary conditions need to be included in the agreements entered into between different service providers.
- c. The distributors, sharing the infrastructure, should put in place necessary technical arrangements for detecting the specific pirate in the unlikely event of any such incidence, and satisfy the broadcaster's reasonable concerns at the time of initial audit itself.

G: Amendments in NOCC & WPC guidelines for enabling infrastructure sharing:

14. The Authority recommends that MIB should take up the issue of infrastructure sharing with DOS, WPC and NOCC to pave away for sharing of transponder capacities by operators and necessary amendments, if any, should be carried out in the licenses/permission letters.

List of Acronyms

Abbreviations	Description
CAPEX	Capital Expenditure
CAS	Conditional Access System
СР	Consultation Paper
СРЕ	Customer Premises Equipment
CRM	Customer Relationship Management
DAS	Digital Addressable Cable TV Systems
DoS	Department of Space
DoT	Department of Telecommunication
DPO	Distribution Platform Operator
DTH	Direct to Home
EPG	Electronic Programme Guide
HITS	Head-end in The Sky
ICT	Information and Communication Technologies
IPTV	Internet Protocol Television
ISRO	Indian Space Research Organisation
LCO	Local Cable Operator
LCN	Logical Channel Number
LOI	Letter of Intent
MIB	Ministry of Information and Broadcasting
MSO	Multi System Operator
NOCC	Network Operation and Control Centre
OPEX	Operating Expense
QoS	Quality of Service
SACFA	Standing Advisory Committee on Frequency Allocation
SMS	Subscriber Management System
STB	Set-Top-Boxes
TRAI	Telecom Regulatory Authority of India
UI	User Interface
WPC	Wireless Planning and Co-ordination





D.O. No. 12/12/2016-DAS

भारत सरकार सूचना एवं प्रसारण मंत्रालय शास्त्री मवन, नई दिल्ली-110001

GOVERNMENT OF INDIA MINISTRY OF INFORMATION & BROADCASTING SHASTRI BHAWAN, NEW DELHI - 110001

29th April, 2016

Den Jir.

This is regarding sharing of infrastructure by MSOs, LCOs and HITS operators for providing TV services.

- 2. As you are aware that in a petition, filed by one registred MSO, namely M/s Shimla Satellite Cable Pvt. Ltd., in the Hon'ble High Court of Shimla regarding permission for sharing of infrastructure with another registered MSO for providing cable TV service, Hon'ble High Court had passed an order to the Ministry to consider the petition of the MSO. Since the Cable Television Networks (Regulation) Act 1995 and Rules made thereunder, as amended from time to time, are silent about sharing of infrastructure by the MSOs for providing cable TV services, therefore, on the basis of the various provisions of the cable TV Act/Rules and TRAI regulations, Ministry had disposed off his application stating that the request for sharing of digital headend cannot be acceded. Copy of the reply sent to the company is enclosed as Annexure-I.
- 3. TRAI in its letter No. 15-2/2016-BC&S dated 16th February, 2016 to JS(B-I) had mentioned that HITS infrastructure can be efficiently used for retransmission of signals of TV channels by different MSOs in far flung areas and certainly would be helpful in digitisation of TV services in the country.
- 4. Ministry fully supports the idea of sharing of infrastructure and is ready to make necessary amendments in the Cable Rules provided it fulfils the following major requirements:
 - i. These are acceptable to all stakeholders.
 - No HITS operator/MSO/LCO is able to transmit any channel of any Broadcasters without an appropriate interconnection agreement with the broadcaster/MSO/HITS operator as the case may be.
 - iii. No MSO/LCO is able to transmit or re-transmit any channel, including local and own channels, without encryption.

Chairman, TRAI Dy. No. 2183 Date 4-5-16

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- iv. Authorised officers of the State Governments and their representatives are also able to access the system of MSOs/LCOs to ensure that there are no violations of the provisions of the Cable Act/Rules and TRAI Regulations and also to cross-check the reported number of subscribers/total collection from subscribers for the purposes of entertainment taxes etc.
- v. Accountability of MSOs/LCOs/HITS operators is ensured with reference to the Subscriber Management System (SMS), their respective subscribers and to the respective state Governments and local administration as well as to the Central Government on all relevant aspects.
- A brief on various provisions in the Cable Act/Rules and TRAI Regulations, Court case and Communication from TRAI in this regard is enclosed as Annexure-II to bring to the fore the prevalent position in the matter.
- 6. In view of the above, I request you to kindly get the issue of sharing of infrastructure examined in consultation with all stakeholders and provide recommendations under Section 11 (1) (a). Amendments required in the Cable Television Networks (Regulation) 1995 Act and the Rules framed thereunder may also be suggested.

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Yours sincerely,

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(Sunil Arora)

Encl.: a/a.

Shri R.S. Sharma

Chairman
Telecom Regulatory Authority of India (TRAI)
Mahanagar Doorsanchar Bhawan
Jawaharlal Nehru Marg (Old Minto Road)
New Delhi.

Annexuse L

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By Speed Post/E-mail

No. 12/12/2016-DAS Government of India Ministry of Information and Broadcasting A-Wing, Shastri Bhawan, New Delhi

Dated: 08.03.2016

To

M/s Shimla Satellite Cable Pvt. Ltd. Thakur Vatika, Khalini, Shimla – 171002

E-mail: munish.khanna185@yahoo.in

Sub: Representation from Shimla Satellite Cable Pvt Ltd. in terms of order dated 05.01.2016 passed by Hon'ble Himachai Pradesh High Court at Shimla in CWP No. 4884 of 2015 - reg.

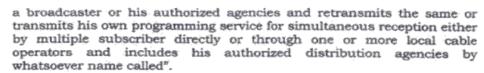
Sir.

I am directed to refer to your representation dated 11.01.2016 regarding sharing of infrastructure with M/s Fastway Transmission Pvt. Ltd. who is having 51% share in M/s Shimla Satellite Cable Pvt. Ltd. In this connection on 20th January 2016, you were requested to provide the details of the infrastructure (hardware and software) which your company intends to share with M/s Fastway Transmission Pvt Ltd. and the infrastructure which your company will put up on your own. You were also requested to indicate the arrangements with regard to agreements with the broadcasters.

- 2. In response to the Ministry's letter, a reply dated 5th February 2016 has been received by e-mail from you indicating that your company will share digital headend inclusive of Subscriber Management System (SMS) and Conditional Access System (CAS) with M/s Fastway Transmission Pvt. Ltd. You have further mentioned that other infrastructure like billing, fiber optics, STBs and call center facility is provided and procured by M/s Shimla Satellite Cable Pvt. Ltd. You have further mentioned that your company will deal directly with the broadcasters for the content in your territory and pay them directly through M/s Shimla Satellite Cable Pvt. Ltd.
- 3. In this connection, your attention is drawn to the following provisions of the Cable Television Network (Regulation) Act and Rules framed there under and the regulations on digital addressable system (DAS) for cable TV network issued by Telecom Regulatory Authority of India (TRAI):
 - (i) Rule 2(c) defines "the MSO as a cable operator who has been granted registration under Rule 11C and who receives programming service from

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- (ii) Rule 13(3) mandates that "every MSO shall set up and operationalise its Subscriber Management System within a time frame as may be determined by the authority by regulation or order, for ensuring efficient and error-free service to the subscribers by recording and providing individualized preferences for pay channels, billing cycles or refunds".
- (iii) Terms and Conditions for registration as MSO specifies under Rule 11D (a) & (b) that a person who has been granted certificate as MSO under Rule 11C shall comply, in addition to other, the following terms and conditions:
 - a. Such person shall comply with all the provisions of the Act and Rules made thereunder:
 - Such person shall comply with the regulations, orders, directions or guidelines made or issued by the Authority;
- (iv) Section 10A of the Cable Television Networks (Regulation) Act, 1995 mandates inspection of cable network and services by the Central Government or its authorized officers. Under the purview of this Act, authorized officers carry out the inspection of Headend equipment of MSOs for checking and confirming the data about the number of subscribers, the channels being provided by them etc. Authorized officers may also carry out inspection to ascertain the amount of entertainment and other taxes being collected/deposited by the MSOs. Section 4A (7) of the same Act mandates that every cable operator shall provide such information relating to the cable services in such format and at such periodic intervals to the Central Government or the State Government or the Authority or their authorized representatives, as may be specified by them from time to time.
- (v) Sub-regulation 3(4) of the Telecommunication (Broadcasting and cable Services) Interconnection (Digital Addressable Cable Television Systems) Regulations 2012 (9 of 2012) issued by Telecom Regulatory Authority of India (TRAI), mandates that "every MSOs while seeking interconnection with the broadcaster shall ensure that its digital addressable system installed for the distribution of TV channels meets the digital addressable system requirements specified in Schedule I to these regulations: Provided that in case the broadcaster finds that the digital addressable system being used by the MSO for distribution of TV channel does not meet the requirements specified in the Schedule I, it shall inform such MSO who shall get its digital addressable system audited by M/S Broadcast Engineering Consultants Ltd or any other agency as may be

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specified by the Authority and obtain a certificate from such agency that its system meets the requirements specified in the schedule I to these regulations". Schedule I specifies the requirements of CAS (Conditional Access System and SMS (Subscriber Management System) to be installed by the MSO. Further, the schedule II of the same regulations which specifies the terms and conditions for Reference Interconnect Offers (RIO), it is mentioned under the heading "Reports" that MSO will maintain at its own expense a subscriber management system (SMS) that should be fully integrated with the CAS (Conditional Access System).

- (vi) Sub-regulation 5(7) of the interconnect 2012 (9 of 2012) issued by TRAI prescribes that "no broadcaster of pay channels shall make available signals of TV channels to any MSO without entering into a written interconnection agreement". For seeking TV channels from broadcasters MSOs are required to ensure that the requirements specified in Schedule I (pertaining to CAS and SMS) and schedule II of the interconnect regulations are met.
- CAS and SMS are integral part of Digital Cable TV Headend. Since MSO is required to comply with the provisions of the cable TV networks (Regulation) Act/Rules and the Regulations issued by TRAI that is why the following condition had been made as one of the conditions for issue of the MSO registration:

"The MSO shall have an independent digital headend of his own and provide digital addressable service from his headend."

In view of the above, your request for sharing Digital Headend, inclusive of SMS and CAS, with M/s Fastway Transmission Pvt. Ltd, cannot be acceded to and your representation is accordingly disposed-off with the direction to make the system fully operational within the timeframe specified in this Ministry's registration letter No. 9/103/2015-DAS dated 13.07.2015 failing which the registration so granted shall liable to be revoked/suspended.

Yours faithfully,

Shankale/2916

(Shanker Lal) Deputy Secretary to the Government of India

> Tele: 2338 7373 (UNITY STEE)
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By Speed Post/E-mail

Shimla Satellite Cable Pvt. Ltd. Thakur Vatika, Khalini, Shimla-171002 (H.P.)

Date: 05/02/2016

Sh. Anil Kumar Under Secretary To the Government of India, Ministry of Information and Broadcasting, A-Wing, Shastri Bhawan, New Delhi Station

Subject: Representation from Shimla Satellite Gable Pvt Ltd. In terms of order daied 05.01.2016 passed by Hon,ble court of shimla reg.

Dear Sir,

This has reference to your letter No. 12/12/12016-DAS dated 28/01/2016, on the subject cited above regarding the requirement of certain information by your office in furtherance to our representation dated 11/01/2016.

In this regard it is submitted that in our representation dated 11/01/2016, we had specified the details of infrastructure to be shared with Fastway Transmission Pvt. Ltd., for your convenience we are again specifying the details of infrastructure to be shared with Fastway.

It is submitted we will share Digital Head End, inclusive of SMS (subscriber management system) and CAS (Conditional Access System).

It is further submitted that apart from above mentioned facilities all other infrastructure like. Billing, fiber optics, STB's and call center facility is provided and procured by the Shimla Satellite Cable Pvt. Ltd.

We further wish to specify that we will deal directly with the Broadcasters for the content in our territory and pay them directly through the Shimla Satellite Cable Pvt. Ltd..

Hope the above information suffices your quarries, for any other information please feel free to contact the undersigned.

Thanking you in anticipation.

Yours Truly,

For Shimla Satellite Cable Pvt. Ltd.,

Munish Khanna

Sharing of infrastructure -

Brief on various provisions in the Cable Act/Rules and TRAI Regulations, Court case and Communication from TRAI

1. Provisions in Cable TV Act/Rules and TRAI regulations reg. SMS etc.

1.1 Cable Television Network (Regulation) Rules 1994 as amended

- (i) Rule 2(c) defines "the MSO as a cable operator who has been granted registration under Rule 11C and who receives programming service from a broadcaster or his authorized agencies and retransmits the same or transmits his own programming service for simultaneous reception either by multiple subscriber directly or through one or more local cable operators and includes his authorized distribution agencies by whatsoever name called".
- (ii) Rule 13(3) mandates that "every MSO shall set up and operationalise its Subscriber Management System within a time frame as may be determined by the authority by regulation or order, for ensuring efficient and error-free service to the subscribers by recording and providing individualized preferences for pay channels, billing cycles or refunds".
- (iii) Terms and Conditions for registration as MSO specifies under Rule 11D (a) & (b) that a person who has been granted certificate as MSO under Rule 11C shall comply with inter alia, the following terms and conditions:
 - Such person shall comply with all the provisions of the Act and Rules made thereunder:
 - Such person shall comply with the regulations, orders, directions or guidelines made or issued by the Authority;

1.2 Cable Television Network (Regulation) Act 1995

Section 10A of the Cable Television Networks (Regulation) Act, 1995 mandates inspection of cable network and services by the Central Government or its authorized officers. Under the purview of this Act, authorized officers carry out the inspection of Headend equipment of MSOs for checking and confirming the data about the number of subscribers, the channels being provided by them etc. Authorized officers may also carry out inspection to ascertain the amount of entertainment and other taxes being collected/deposited by the MSOs. Section 4A (7) of the same Act mandates that every cable operator shall provide such information relating to the cable services in such format and at such periodic intervals to the Central Government or the State Government or the Authority or their authorized representatives, as may be specified by them from time to time.

1.3 TRAI Telecommunication (Broadcasting and cable Services) Interconnection (Digital Addressable Cable Television System) Regulation 2012

- (i) Sub-regulation 3(4) of the Telecommunication (Broadcasting and cable Services) Interconnection (Digital Addressable Cable Television Systems) Regulations 2012 (9 of 2012) issued by Telecom Regulatory Authority of India (TRAI), mandates that "every MSOs while seeking interconnection with the broadcaster shall ensure that its digital addressable system installed for the distribution of TV channels meets the digital addressable system requirements specified in Schedule I to these regulations: Provided that in case the broadcaster finds that the digital addressable system being used by the MSO for distribution of TV channel does not meet the requirements specified in the Schedule I, it shall inform such MSO who shall get its digital addressable system audited by M/S Broadcast Engineering Consultants Ltd or any other agency as may be specified by the Authority and obtain a certificate from such agency that its system meets the requirements specified in the schedule I to these regulations". Schedule I specifies the requirements of CAS (Conditional Access System and SMS (Subscriber Management System) to be installed by the MSO. Further, the schedule II of the same regulations which specifies the terms and conditions for Reference Interconnect Offers (RIO), it is mentioned under the heading "Reports" that MSO will maintain at its own expense a subscriber management system (SMS) that should be fully integrated with the CAS (Conditional Access System).
- (ii) Sub-regulation 5(7) of the interconnect 2012 (9 of 2012) issued by TRAI prescribes that "no broadcaster of pay channels shall make available signals of TV channels to any MSO without entering into a written interconnection agreement". For seeking TV channels from broadcasters MSOs are required to ensure that the requirements specified in Schedule I (pertaining to CAS and SMS) and schedule II of the interconnect regulations are met.

2. Court Case

M/s Shimla Satellite Cable Pvt. Ltd., who is a registered MSO, had filed a case in the Hon'ble Court of Shimla requesting for permission not to set up his own headend as stipulated in the order for grant of MSO registration. He wanted sharing of infrastructure with M/s Fastway Transmission Pvt. Ltd. who is having 51% share in M/s Shimla Satellite Cable Pvt. Ltd. Hon'ble High Court had ordered to consider his representation. He was asked to provide the details of the infrastructure (hardware and software) which his company intends to share with M/s Fastway Transmission Pvt Ltd. and the infrastructure which his company will put up of its own. He was also asked to indicate the arrangements with regard to agreements with the broadcasters. In reply he had indicated that his company will share digital headend, inclusive of Subscriber Management System (SMS) and Conditional Access System (CAS), with M/s Fastway Transmission Pvt. Ltd. He had further mentioned that other infrastructure like billing, fiber optics, STBs and call center facility will be provided and procured by M/s Shimla Satellite Cable Pvt. Ltd. He had also mentioned that his company will deal directly with the broadcasters for the content in his territory and pay them directly through M/s Shimla Satellite Cable Pvt. Ltd. After examination, his representation was disposed off stating that the request for sharing Digital Headend, inclusive of SMS and CAS, with M/s Fastway Transmission Pvt. Ltd, cannot be acceded. A copy of the reply sent to him is enclosed for reference.

Communication from TRAI for sharing of infrastructure for TV services on HITS platform

On the representations of HITS operators, TRAI in their letter No. 15-2/2016-BC&S dated 16th Feb 2016 has mentioned that HITS infrastructure can be efficiently used for retransmission of signals of TV channels by different MSOs in far flung areas and certainly would be helpful in digitisation of TV services in the country. In the case of TV services provided through HITS platform, the guidelines issued by Ministry inter alia state;

"The HITS operator can also decide to merely provide passive infrastructure facilities like transponder space on satellite, earth station facilities and the provisions for simulcypting/multicrypting of channels aggregated by different MSOs with different encryption systems or to a consortium of cable operators/MSOs desirous of uplinking channels to his HITS satellite for downlinking and further transmission to the TV homes by cable operators across the country. The HITS operator in this case need not contract with the broadcasters for content".

As per Ministry of Information & Broadcasting Notification S.O. 940(E) dated 28th April 2012)

- "11A Application for registration as a Multi-System Operator —(1) For the purpose of operation of cable television network services with digital addressable system in a notified area, a person who desires to provide such service shall make an application for registration as Multi-System Operator to the registering authority in Form 6.

 (2) Every application under sub-rule (1) shall be accompanied by-
- a processing fee of rupees one lakh;
- declaration in Form 2:
- 11B. Eligibility criteria for Multi-System Operator.— The following criteria shall be fulfilled by an applicant who makes an application under rule 11A, namely:-
 - (a) where the applicant is a person, he shall be a citizen of India and not less than eighteen years of age;
 - (b) where the applicant is an association of individuals or body of individuals, whether incorporated or not, the members of such an association or body shall be citizens of India and not less than eighteen years of age;
 - (c) where the applicant is a company, such company shall be a company registered under the Companies Act, 1956 and shall be subject to such conditions relating to foreign direct investment as may be decided by the Central Government;
 - (d) the applicant shall not be an un-discharged insolvent,
 - (e) the applicant shall not be a person of unsound mind as declared by a competent court;
 - (f) the applicant shall not/be convicted of any criminal offence.
- 11C. Registration as Multi-Systems Operator.—(1) On being satisfied that the applicant fulfils the eligibility criteria specified under rule 11B and the requirements of rule 11A, the registering authority shall, subject to the terms and conditions specified in rule 11D and the security clearance from the Central Government, issue certificate of registration.
- (2) Where the registering authority is satisfied that registration cannot be granted, it shall inform the applicant in writing giving reasons for such refusal.

- 11D. Terms and conditions for registration as Multi-Systems Operator.— A person who has been granted certificate under rule 11C shall comply with the following terms and conditions, namely.—
 - (a) such person shall comply with all the provisions of the Act and the rules made thereunder.
 - (b) such person shall comply with the regulations, orders, directions or guidelines made or issued by the Authority;
 - (c) such person shall have the capacity to carry minimum number of television channels specified by the Authority;
 - (d) such person shall not carry programming service provided on the channel generated at the level of such Multi-System operator which is in violation of the Programme Code specified in rule 6 and the Advertising Code specified in rule 7.

For FORM 2, a new From shall be substituted, namely, FORM-2

(See rule 3(3) and Rule 11A(2)

I/We — the applicant(s) (individual/firm/company/association of person/body of individuals) for registration as a cable operator/Multi-System operator/renewal of registration as a cable operator/Multi-System operator do hereby declare that:-

- (i) I/We shall ensure that my / our cable television network shall be run in accordance with the provisions of the Cable Television Networks (Regulation) Act, 1995, and the rules made thereunder, regulations, orders, guidelines or the directions issued by the Central Government or the Authority from time to time.
- (ii) I/We shall not permit/associate any person who is not eligible to run a cable television network under the Cable Television Networks (Regulation) Act, 1995 to

run/with the running of my/our cable television network.

- (iii) I/We shall strive to the best of my / our ability to provide cable service to the satisfaction of the subscriber (s) of my/our cable television network.
- (iv) I/We shall strive to the best of my / our ability to ensure that my / our cable television network is not used for any unlawful purpose.
- (v) I/We shall obtain the necessary approval/clearance from the relevant authority for the running of my / our cable television network.
- (vi) I/We shall abide by any direction issued by the Central Government in respect of the running of a cable television network within India.
- (vii) I/We shall transmit or re-transmit channels in the area notified under section 4 A of the Act in an encrypted form through a digital addressable system and in the event of failure to do so, our existing registration is liable to be cancelled.
- I/we shall not carry programming service provided on the channel generated at the my/our level, which is in violation of the Programme & Advertising Codes prescribed in Rules 6 and 7.
- I/we have not been convicted for a criminal offence.
- I/we are not of unsound mind as declared by a competent court;
- I/we are not an undischared insolvent
- I/We have submitted all the documents as prescribed in Form 1 (in case of cable operators) and Form 6 (in case of Multi-System Operator).

4	Signature of Applicant
(Individual/fir	m/company/association of persons / body of individuals)
Place:	Name
Date:	Address
Score out the word or words wh	rich are not applicable
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Date:	C0520-21-11-10-29-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-

For FORM 6, a new From shall be substituted, namely,

FORM-6

[See Rule 11 A] (To be submitted in duplicate)

To The Secretary Ministry of Information & Broadcasting, 'A' Wing, Shastri Bhawan, New Delhi - 110001.

Subject: Application for grant of registration to multi-system operators to provide cable television network services with digital addressable system in any or more notified areas.

Sir

I hereby submit the following details for grant of registration

- 1.(a) Name of the Applicant (individual/firm/company/association of persons/body of individuals) **
- (b) Age/Date of establishment/Date of Incorporation
- (c): Address of the premise from where the service will be offered
 - 2(a). Citizenship (for individual applicants/body of individuals).
 - (b) Details of incorporation in case of Company,
 - 3 (a) Bank Draft of Rs.1,00,000 in favour of Pay & Accounts Officer, Ministry of Information & Broadcasting.
 - (b). PAN Number
 - (c) Copy of current Income Tax, Service Tax and Entertainment Tax returns . If not available, the reasons therefor.

20

(d) Service Tax Registration Number of individual/firm/company/association of persons/body of individuals. (If the number is not available at the time of application, the same can be allowed to be submitted within two months. Applicant shall be required to file an affidavit to this effect along with the application for grant of license)

- (e) Entertainment Tax Registration Number
- Details of existing. Registration as a Cable Operator.
 - · Name of the Post Office with which registered
 - · Registration No./Validity up to
 - · Copy of the Registration Certificate (enclose)
- 5. Complete Postal Address with Telephone/Fax No. /E-mail ID
 - · Corporate Office/Head Office
 - · Registered Office
 - Regional Offices
 - Address of Correspondence
- Name of authorized contact person, his designation and telephone/fax No. /E-mail 1D
- 7 *Registration detail under Companies Act, 1956: Incorporation No. and Date (Attach a copy of Certificate of Incorporation and Memorandum and Article of Associations)
- *Board of Directors (Attach list of Directors along with bio-data of each Director giving date of birth, place of birth, parentage, nationality, permanent address, residential address, official address, passport No. (if any), qualification, experience, etc.
- *Attach list of key executives including CEO/MD along with details as in 8 above.
- 10. Authorized Share Capital, (ii) Paid-up Share Capital, (iii) Net worth (enclose a copy of the audited Balance Sheet and Profit & Loss Account for the immediate preceding year and certificate of Net Worth on the basis of these documents by a Chartered Accountant).
- Details of availability/arrangement of funds for operation of cable service as MSO (sufficient proof to be enclosed).
- (i) Present Area of Operation (if in more than one city, city-wise details to be given).
 - (ii) DAS notified Area or Areas proposed to be covered by the applicant (if in more than one city, then city-wise details should be given)
- No. of channels being provided (own/broadcasters') (give names separately for own channels and broadcasters' channels).
- 14. Whether the capacity to carry minimum number of channels specified by the Authority is available. Yes./ No.

- Other value added services being provided (details along with their copies of licenses).
- Total no. of each of local cable operators and subscribers covered (attach list of local cable operators with their telephone nos. /fax nos. /E-mail IDs and the number of subscribers each of the cable operators has with him.)
- 17. Details of past experience/field of activity.
- Preparedness to supply and maintain adequate number of Set Top Boxes for the subscribers and installation of subscriber management system (give details to substantiate your claim including no. of Set Top Boxes already available/orders placed/network of authorized persons/agents to supply and provide after sales service).
- 19. Number of Agreements signed with broadcasters to supply their channels under Digital Addressable System (DAS) scheme (Give names of broadcasters and their channels for which agreements signed along with copies of agreements to substantiate your claim)
- 20. What arrangements have been made/proposed to be made to give wide publicity to DAS scheme in each of the notified areas, as approved by the Authority. (Give full details).

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al die	Undertaking	on a	stamp	paper	of Rs.	10 as	per	Form	2

F.No.9/88/2014-BP&L Government of India Ministry of Information and Broadcasting BP&L(DAS Section)

Dated /2 -09-2014

NOTICE

Sub: Registration as MSO to operate in DAS notified areas of Cable TV - Streamlining of procedure for obtaining Security Clerance from MHA.

Ministry of Home Affairs (MHA) has devised a new format for furnishing details in respect of applicant MSO Companies and Directors/Key Executives of their companies as attached herewith for providing the requisite Security Clearance.

- Since the final grant of permission to MSO applicants by this Ministry for operation in DAS notified areas is based on the Security Clearance or otherwise received from MHA, all MSO applicants, including those who are yet to get the necessary permission, are requested henceforth to furnish the information as per the revised format prescribed by MHA.
- In this connection, it is also informed that as per MHA guidelines the approval/permission/license granted will also be liable to be cancelled in the event of withdrawal of Security Clearance by MHA.
- All MSO applicants are, therefore, requested/advised to adhere to the above.
- For any clarification or enquiry, applicant companies are requested to participate/ attend the Open House Meetings being organized by this Ministry on every Tuesday at 11.00 hours in the Room of Director (BP&L) in Room No.662, A Wing 6th Floor Shastri Bhavan, New Delhi by confirming their participation through sending an email at sobpandl@gmail.com or at das.mib@gmail.com by Friday of every week.

(Shanker Lal)

Deputy Secretary(DAS)

Telehone:23387373

Details in respect of Company/Firm (Indian/Foreign)

Details of Ultimate ownership of shareholding companies approval, if (and the investing any ref. No. & company if applicable) along with detailed particulars of owner as in (ii) below
Details of earlier approval, if any ref. No. & date
Name of Shareholding CEOs/Partners Pattern for (with details) as applicant company, in company, if applicable)
Name of CEOs/Partners (with details) as in (ii) below
Activities and other business owned
Joint Ventures with other business owned
Present & Present & Permanent Address of Head Office, Regional Office and Registered Office
Date of Cor registr ation
Full Name of Companies and its foreign collaborator s if any: including details of Board of Director as in(ii) below
S S ·

Foreign investee/partner company Self declaration regarding presence/operation in China & Pakistan (if any)

ii.) Details of the Directors/Key executive in respect of whom clearance is sought:

Passport Nos. and issue Contact Address & telephone date, if number, if any any	
Address	%5
Contact number,	o more than 10%
issue	dino n
and	Cherry
Nos.	do eh
Passport date, if any	drink barre
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Complete Present Permanent Address	The state of the s
Date of Birth	
held date	
Present position with (since who	
Parentage	
Name	
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ii.) Details of Shareholders (All Firms/companies/entities to be included. Also, individuals having shareholding

% of Shares held in other Company (if any) than name of company & complete address may be provided	
Nationality (if hold dual nationality, both must be clearly mentioned)	112200000000000000000000000000000000000
Present Position held	
Complete Present & Permanent	Transfer and
Permanent Address	
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Parentage	
Name	
SI. No.	

GUIDELINES FOR PROVIDING HEADEND-IN-THE-SKY (HITS) BROADCASTING SERVICE IN INDIA

INTRODUCTION:

The Ministry of Information and Broadcasting, Government of India has formulated the policy guidelines for grant of Permission to establish and operate "Headend in the Sky (HITS)" broadcasting service from India.

Companies desirous of establishing and operating Headend in the Sky (HITS) Service platform shall be required to obtain Permission from the Ministry of Information and Broadcasting in accordance with the terms and conditions prescribed under these guidelines.

Headend-in-the-Sky (HITS) Broadcasting Service, refers to the multichannel downlinking and distribution of television programme in C-Band or Ku Band, wherein all the pay channels are downlinked at a central facility (Hub/ Teleport) and again uplinked to a satellite after encryption of channels. At the cable headend these encrypted pay channels are downlinked using a single satellite antenna, transmodulated and sent to the subscribers by using a land based transmission system comprising of infrastructure of cable/optical fibres network.

After obtaining a HITS license from the Ministry of Information & Broadcasting, the HITS operator can himself contract with different broadcasters for buying the content, aggregating the same at an earth station and then uplinking with his own encryption to a satellite hired by him. The uplinked channels can then be downlinked by the cable operators using a dish antenna for onward distribution through last mile conventional cable network to the TV homes. In this model, the HITS operator works like a conventional MSO, except that virtually the head-end is in the sky, instead of being located on ground.

The HITS operator can also decide to merely provide passive infrastructure facilities like transponder space on satellite, earth station facilities and the provision for simulcrypting/multicrypting of channels aggregated by different MSOs with different encryption systems to one or more MSOs or to a consortium of cable operators /MSOs desirous of uplinking TV channels to his HITS satellite for down linking and further transmission to the TV homes by the cable operators across the country. The HITS operator in this case need not contract with the broadcasters for content. He only enters into contracts with one or more MSOs or consortium of cable operators desirous of uplinking their aggregated channels from HITS earth station(s) to the HITS satellite.

The HITS operator has the freedom to use his satellite's transponder capacity both for transmitting his own aggregated content, as well as to provide passive infrastructure to other MSOs for uplinking/downlinking their aggregated content.

The permission of the existing two permission holders who have been given permission to provide HITS services in the year 2003 will continue for the remaining period of permission and operationalisation of HITS services may be done by them as per terms and conditions laid down in these guidelines.

1. ELIGIBILITY CRITERIA

- 1.1 The applicant seeking permission for providing HITS services shall be a Company registered in India under the Companies Act, 1956.
- 1.2 The Company should have a minimum Net worth of Rs Ten crores. The Net Worth shall be calculated as per the proforma specified and shall be certified by the Statutory Auditor of the company.
- 1.3 The total direct and indirect foreign investment including portfolio and foreign direct investments into the company shall not exceed 74% at the time of application and during the currency of permission. The methodology of calculation of the direct and indirect foreign investments would be as per the extant policy of the Government. The company will be required to disclose the status of such foreign holding and certify that the foreign investment is within the ceiling of 74% on yearly basis.
- 1.4 FDI upto 49 per cent will be on automatic route. The approval of the Foreign Investment Promotion Board (FIPB) shall be required for FDI in the company/Indian promoters/investment companies including their holding companies if it has a bearing on the overall ceiling of 74 per cent.
- 1.5 The company shall make full disclosure, at the time of application, of Shareholders Agreements, Loan Agreements and such other Agreements that are finalized or are proposed to be entered into. Any subsequent changes in these would be disclosed to the Ministry of Information and Broadcasting, within 15 days of any changes, having a bearing on the foregoing Agreements.
- 1.6 Broadcasting Company(ies) and/or DTH licensee company(ies) will not be allowed to collectively hold or own more than 20% of the total paid up equity in the company at any time during the permission period. Simultaneously, the HITS permission holder should not hold or own more than 20% equity share in a broadcasting company and/or DTH licensee company. Further, any entity or person holding more than 20% equity in a HITS permission holder company shall not hold more than 20% equity in any other Broadcasting Company(ies) and/or DTH licensee and vice-versa. This restriction, however, will not apply to financial institutional investors. However, there would not be any restriction on equity holdings between a HITS permission holder company and a MSO/cable operator company.
- 1.7 While determining the shareholding of a Company or entity or person as per para 1.6 above, both its direct and indirect shareholding will be taken into account. The principle and methodology to determine the level of indirect holding shall he the same as has been adopted in Press Note 2 of 2009 dated 13.2.09 of the Department of Industrial Policy and Promotion

under the Ministry of Commerce and Industry for determination of indirect foreign investment.

2. NUMBER OF PERMISSIONS:

There will be no restrictions on the total number of HITS permissions and these will be issued to any company which fulfils the eligibility criteria & necessary terms and conditions and subject to the security and technical clearances by the appropriate authorities of the Government.

3. PERIOD OF PERMISSION

- 3.1 Permission for providing the HITS Service will be valid for a period of Ten years from the date of issue of wireless operational license (WOL) by the Wireless Planning and Coordination Wing of the Ministry of Communications and Information Technology.
- 3.2 The permission may be terminated earlier as provided in paras 10 and 13...
- 3.3 The permission granted to the company shall be non-transferable except with specific and prior approval of the Government.

4. NON REFUNDABLE ENTRY FEES AND OTHER FEES

- 4.1 The applicant will be required to pay a non-refundable entry fee of Rs.10 crones.
- 4.2 No annual fee will be required to be paid.
- 4.3 The company/permission holder shall also in addition pay the license fee and royalty for the spectrum used as prescribed by Wireless Planning & Coordination Authority (WPC), under the Department of Telecommunications.

5. BANK GUARANTEE

- 5.1 The applicant company shall, within one month of the issuance of SACFA clearance by WPC, submit to the Ministry of I & B, a Bank Guarantee from any Scheduled Bank in the format notified, for an amount of Rs.40 crores valid for a period of three years.
- 5.2 The HITS permission holder should commence uplinking/downlinking operations within a period of one year from the date of issuance of SACFA clearance by the WPC after obtaining Wireless Operational License failing which half of the bank guarantee would be forfeited.
- 5.3 If the operator does not start the service within two years from the date of issuance of SACFA clearance by the WPC, the full performance bank guarantee will be forfeited and action for revocation of the permission will also be considered on completion of two years from the date of issuance of SACFA clearance by the WPC.
- 5.4 If the HITS permission holder fulfils the roll out obligation within one year of issuance of SACFA clearance by the WPC. then full amount of performance bank guarantee will be

refunded. If the HITS permission holder meets the roll out obligation after one year but within two year of the issuance of SACFA clearance by the WPC, then half of performance bank guarantee will he refunded.

6. BASIC CONDITIONS AND OBLIGATIONS

- 6.1 The majority of Directors on the Board of the Company shall be Indian Citizens. The Company, Directors, Managing Director, Chief Executive Officer(CEO), and Chief Financial Officer (CFO) will be required to be security cleared from the Ministry of Home Affairs. The company shall give without fail intimation to Ministry of I & B regarding change in the directorship, key executives or foreign direct investment in the company, within 15 days of such a change taking place.
- 6.2 No permission holder shall carry or include in his HITS Service any television broadcast or channel which has not been registered by the Ministry of Information and Broadcasting for being viewed within the territory of India. Notwithstanding any agreement entered into between the permission holder and broadcaster(s)! TV channel owner(s), the permission holder shall stop from carrying! including in its HITS service, TV channels, whenever such registration/permission is withdrawn
- 6.3 The permission holder shall not carry any channels broadcast of which is prohibited by the Ministry of Information & Broadcasting.
- 6.4 The company shall not carry the channels of a broadcaster against whom the competent authority or any regulatory body, tribunal or court have found the following: -
- (i) It has refused access on a non-discriminatory basis to another broadcasting service provider contrary to the rules, regulations etc. governing the broadcasting services in India (ii) It has violated the provisions of any law relating to competition including the Competition Act. [Explanation: It shall be the sole responsibility of the permission holder to ascertain before carrying any channels on its network whether any television channel broadcaster has been found to be in violation of the above conditions or not. In respect of TV channels already being carried on the platform, the permission holder shall ascertain from every source including the Government, TRAI, Tribunal or a Court whether concerned broadcaster or the channel is in violation of the above conditions. If any violation so comes to its notice, the permission holder shall forthwith discontinue carrying the television channels of such broadcaster.]
- 6.5 The permission holder shall ensure that each of the channels carried by it follows the Programme Code and Advertisement Code as laid down under the Cable Television Networks (Regulation) Act, 1995 and the Rules framed thereunder or any other code made applicable.
- 6.6 The permission holder shall invariably ensure that the subscribers of the service do not have access to any pornographic channel or to secret/ anti-national messaging and the like through the HITS platform. If the permission holder fails to do so . the permission granted

shall be revoked and the company shall be disqualified to hold any such Permission in future for a period of five years, apart from liability for punishment under other applicable laws.

- 6.7 The permission holder shall ensure that its facilities are not used for transmitting any objectionable content, messages or communication inconsistent with the laws of India. If the permission holder fails to do so, the permission granted shall be revoked and the company shall be disqualified to hold any such Permission in future for a period of five years, apart from liability for punishment under other applicable laws.
- 6.8 The permission holder shall provide access to various content providers/channels on a non discriminatory basis.
- 6.9 The permission holder shall not enter into any exclusive contract for distribution of TV Channels.
- 6.10 The permission holder shall comply with the terms and conditions of Wireless Operational License to be issued by the WPC Wing, Ministry of Communications & IT.
- 6.11 The Company shall ensure its continued eligibility as applicable throughout the period of permission and adhere to all the terms and conditions of the permission, failing which the company shall be liable for penalty as specified in Para 14.2 below.
- 6.12 The government shall have the right to notify the number and names of television channel or channels of Prasar Bharati or any other television channel for compulsory carriage by the HITS provider in his service and the manner of reception and retransmission of such channels.
- 6.13 The Permission Holder shall carry other television channels of Prasar Bharati on the most favorable financial terms offered to any other channel.

7. MANDATORY SHARING OF CERTAIN BROADCAST SIGNALS WITH PRASAR BHARATI

7.1 The permission holder shall ensure that channels carried by and telecasting sporting events have ensured compliance with the provisions of Sports Broadcasting Signals (Mandatory Sharing with Prasar Bharti) Act, 2007.

8. TECHNICAL STANDARDS AND OTHER OBLIGATIONS

- 8.1 The applicant company shall furnish technical details such as Nomenclature, make, model, name and address of the manufacturers of the equipments/instruments to be used for broadcasting, distribution and reception system, the Block schematic diagram and also demonstrate the facilities for monitoring and storing record for 90 days.
- 8.2 The company can uplink in `C' Band or `Ku' Band only. Uplinking would be permitted both to Indian as well as foreign satellites. However, where the company does not have a satellite of its own or of its group company, proposals envisaging use of Indian satellites will

be accorded preferential treatment. Satellite to be used should have been coordinated with INSAT System.

- 8.3 The HITS operator is required to provide signals directly from his satellite only to the registered MSOs/cable operators and under no circumstances should the HITS operator provide signals directly from his satellite to the consumer. However, he will not be barred from providing signals, through his own cable network if any, to consumers also after first downlinking the signals to his terrestrial receiving station. The signals are to be provided only through QAM set top box.
- 8.4 The company is required to provide commercial interoperability with respect to its set top boxes so that if the subscribers decide to switch over to any other service provider or platform they should be able to do so at least cost. Commercial interoperability here would mean that in addition to offering the receiver set on an outright purchase basis. a subscriber should also have the option to purchase it on a hire-purchase basis or rental basis with a provision to return the set top box on such terms and conditions as may be laid down by regulations issued by TRAI.
- 8.5 The addressability provided to every subscriber should be capable of blocking any unwanted channel or group of channels by the Permission Holder. 8.6 The company shall ensure subscriber's interests through a Subscriber Management System (SMS) for an efficient, responsive and accurate billing and collection system.
- 8.7 The company shall not use any equipment, which is identified as unlawful/or render network security vulnerable.
- 8.8 All content provided by the HITS service provider to the subscribers, irrespective of its source, shall pass through the encryption and digital addressable system located within the earth-station situated on Indian soil.

9. MONITORING AND PUBLIC COMPLAINTS

- 9.1 The company at its own cost shall,
- (i) Preserve the recordings of broadcast material for a period of three months from the date of broadcast and produce the same to the Government or its authorized representative, as and when required and (ii) On demand by the Government or its authorized representative, provide the necessary equipment, services and facilities at designated place(s) for continuous monitoring of the broadcasting service by or under supervision of the Government or its authorized representative.
- 9.2 The company shall submit such information with respect to its services as may be required by the Government or its authorized representative, in the format as may be required, from time to time.

10. INSPECTION

- 10.1 The Government of India. Ministry of Information & Broadcasting or its authorized representative shall have the right to inspect the broadcasting facilities. No prior permission intimation shall be required to exercise the right of Government or its authorized representative to carry out the inspection. The company will, if required by the Government or its authorized representative, provide necessary facilities for continuous monitoring for any particular aspect of the company's activities and operations.
- 10.2 The Government of India, Ministry of Information & Broadcasting or its authorized representative will ordinarily carry out the inspection after reasonable notice except in circumstances where giving such a notice will defeat the very purpose of the inspection.

11. NATIONAL SECURITY AND OTHER CONDITIONS

11.1 The Government of India, Ministry of Information & Broadcasting shall have the right to take over the entire services and networks of the permission holder or revoke/terminate/suspend the permission of the company or to prohibit broadcasting of any or all of the channels for a specified period in the interest of national security or in the interest of emergency or war or low intensity conflict without giving prior notice to the company. The company shall immediately comply with any directives issued in this regard failing which the permission granted shall be revoked and the company disqualified to hold any such Permission in future for a period of five years.

Provided that any taking over or suspension of licence, issuance of a directive as described above shall neither be a ground for extension of licence period nor any compensation.

- 11.2 The company shall not use any equipment, which is identified as unlawful and/or render network security vulnerable.
- 11.3 Permission holder shall be required to obtain security clearance of all foreign personnel likely to be deployed for more than 60 days in a year by way of appointment, contract, and consultancy or in any other capacity for installation, maintenance, operation or any other services prior to their deployment.
- 11.4 The permission shall be subject to permission holder remaining security cleared throughout the currency of permission. In case the security clearance is withdrawn the permission granted is liable to be terminated forthwith.
- 11.5 In the event of security clearance of any of the persons associated with the permission holder or foreign personnel is denied or withdrawn for any reasons whatsoever, the permission holder will ensure that the concerned person resigns or his services terminated forthwith after receiving such directives from the Government failing which the permission granted shall be revoked and the company shall be disqualified to hold any such Permission in future for a period of five years.

12. VALUE ADDED SERVICES

12.1 The permission holder shall be able to use his network for providing other value-added services which otherwise do not require any specific license or permission. Services which require a specific license or permission from the competent authority can only be provided after obtaining such permission. However the permission holder is required to give prior information of all value added services to be carried by it to the Ministry of Information and Broadcasting.

13. PROVISIONS WITH RESPECT TO EXISTING PERMISSION HOLDERS:

- 13.1 Notwithstanding anything contained in the terms and conditions of permission issued earlier. These Guidelines will also be applicable to the existing permission holders.
- 13.1.1 The existing permission holders will be allowed to operationalise their services only after they give an undertaking supported by its Board resolution to Ministry of Information and Broadcasting to ensure compliance with all the provisions contained in the Guidelines within a period of three months from the issuance of these Guidelines which period may, at the discretion of the Government, be extended to a maximum of six months.
- 13.1.2 Existing permission holder will within a period of one month of the issuance of these Guidelines also submit a detailed plan for ensuring compliance to the provisions contained in guidelines. The existing permission holder will also have to deposit the non-refundable entry fee of Rs. 10 crores and submit proof of such deposition.
- 13.1.3 If compliance to provisions of 13.] .1 and 13.1.2 is not ensured by the existing permission holder within the stipulated time period the permission given earlier shall stand withdrawn.
- 13.1.4 The period of permission shall be ten years from the date of issuance of permission by Government of India as per pa 13.1.1 and 13.1.2.

14. TERMINATION OF PERMISSION

- 14.1 Consequences of violation of terms and conditions of the Permission
- 14.1.1 Subject to the provisions contained in paras 6.6, 6.7, 11.1, 1 1.4, 11.5 and 14.2 in the event of the company violating any of the terms and conditions of Permission, the Government shall have the right to impose the following penalties:
- (a) In the event of first violation, suspension of the Permission and prohibition of broadcast up to a period of 30 days.
- (b) In the event of second violation, suspension of the Permission and prohibition of broadcast up to a period of 90 days.
- (c) In the event of third violation, revocation of the Permission and prohibition of broadcast up to the remaining period of the Permission.

- (d) In the event of the failure of the Permission Holder to comply with the penalties imposed within the prescribed time, revocation of Permission and disqualification to hold any fresh Permission in future for a period of five years.
- 14.1.2 In the event of suspension/revocation of Permission, the Government shall not be responsible for any investment by the Permission Holder on the service or by any other party on the strength of his permission.
- 14.1.3 Any suspension/revocation mentioned under this para shall be imposed only after giving a written notice to the company identifying the violation, providing opportunity to rectify it, if its nature so permits or otherwise show cause, within a period of 15 days and non-satisfaction from such rectification and/or cause so shown shall render the company liable for the proposed suspension/revocation.

14.2 Termination for Non eligibility

14.2.1 The Government may, at any time, terminate this Agreement and the Permission. without compensation to the Permission Holder in case the company fails to meet the eligibility criteria as laid down in these Guidelines or its security clearance is withdrawn or liquidation proceedings are initiated or becomes bankrupt or otherwise insolvent or applies for being adjudicated insolvent / bankrupt, provided that such termination shall not prejudice or affect any right of action which has accrued or will accrue thereafter to the Government.

14.3 Termination for convenience

14.3.1 The company may surrender the Permission, by giving an advance notice of one month to the Government as well as to all concerned/affected parties. It is clarified that the Company will not be entitled to claim any refund of the non-refundable Entry Fee already paid to the Government.

15. WPC WING'S PERMISSION

- 15.1 As aforementioned, a separate specific license i.e. Wireless Operational License (WOL), shall be obtained by the applicant company from the WPC Wing of Ministry of Communications &IT, permitting utilization of appropriate frequencies/band for the establishment, maintenance and operation of the HITS platform/facility under usual terms and conditions of such license. The Grant of such License shall be governed by the rules, procedures and guidelines and shall be subject to compliance with all requirements of the WPC wing.
- 15.2 For this purpose, an application shall be made to the "Wireless Advisor to the Government of India, WPC Wing, Department of Telecommunications, Ministry of Communications &IT," in the prescribed application form.
- 15.3 License fee/royalty as prescribed by WPC from time to time, shall have to be paid by the company towards grant of License for usage of frequency spectrum.

- 15.4 The company shall not cause harmful interference to other authorized users of radio spectrum. WPC Wing will have the sole discretion to take practicable and necessary steps for elimination of harmful interference, if any, to other licensed users.
- 15.5 The Wireless Planning and Coordination Wing, Ministry of Communications & IT shall have the right to inspect from time to time the installation from technical angles to check conformity with Wireless Operational License conditions.

16. PROCEDURE FOR APPLICATION AND GRANT OF PERMISSION:

- 16.1 All applicant companies shall apply to the Secretary, Ministry of Information & Broadcasting, in triplicate, in the prescribed proforma alongwith a processing fee of Rupees One Lakh
- 16.2 On the basis of information furnished in the application form, if the applicant is found eligible for setting up of 1-ZITS service in India, the application will be subjected to security clearance of the company, Board of Directors, Managing Director, CEO and CFO in consultation with the Ministry of Home Affairs and for clearance of satellite use with the Department of Space.
- 16.3 After these clearances are obtained, the applicant would be required to pay a Non-Refundable Entry Fee of Rs.10 Crores to the Ministry of Information and Broadcasting.
- 16.4 After such payment of entry-fee, the applicant would be informed of intent of Min. of 1 & B to issue permission and requested to approach WPC for SACFA clearance.
- 16.5 After obtaining SACFA clearance, within one month of the same, the company will have to submit a Bank guarantee in desired format from any Scheduled Bank to the Ministry of Information and Broadcasting for an amount of Rs.40 crores valid for a period of three years.
- 16.6 After submission of this Bank Guarantee, the applicant would be required to sign a Grant of Permission Agreement with the Ministry of Information and Broadcasting as per prescribed proforma.
- 16.7 Thereafter the Ministry of Information and Broadcasting will issue permission to the applicant to provide HITS services in the country in accordance with the terms and conditions of the GOPA.
- 16.8 After signing of such agreement with the Ministry of Information and Broadcasting, the applicant will have to apply to the Wireless Planning & Coordination (WPC) Wing of the Ministry of Communications for seeking Wireless Operational License for establishment, maintenance and operation of HITS services.
- 16.9 All kinds of fees and other dues payable to the Government shall he deposited in the form of Demand Draft in favor of PAY & ACCOUNTS OFFICER, MINISTRY OF INFORMATION & BROADCASTING payable at New Delhi.

17. DISPUTES WITH OTHER PARTIES

17.1 In the event of any dispute between the company and any party other than the Government (including in relation to the Permission and/or Broadcasting services, etc) due to any reason whatsoever, it shall be the sole liability of the company to resolve such dispute amicably or otherwise with the other party and the Government shall have no liability whatsoever in this regard. Further, the company shall undertake to fully indemnify and keep the Government harmless in respect of any action, claim, suit, proceeding, damage or notice to/against the Government for any act of omission or commission on the part of the company, its agents, employees, representatives or servants.

Provided that if any such third party dispute arises on account of non-observance or breach of any rules or regulations or any other terms and conditions of permission by the company as provided, the Government shall also have the right to take any action against the company as provided herein.

18. DISPUTE RESOLUTION AND JURISDICTION

18.1 In the event of any question, dispute or differences arising between the Central Government and the company with respect to permissions issued under these Guidelines, the same shall be resolved before Telecom Disputes Settlement and Administrative Tribunal as per the provisions of Telecom Regulatory Authority of India Act, 1997.

18.2 The courts at New Delhi shall have the jurisdiction over all disputes.

19. MISCELLANEOUS

- 19.1 The grant of Permission/registration shall be subject to the condition that as and when any regulatory authority to regulate and monitor the Broadcast Services in the country is constituted, the company shall adhere to the norms, rules and regulations laid down by such authority.
- 19.2 The Permission/registration shall be governed by the provisions of the Telecom Regulatory Authority of India Act. 1997, Indian Telegraph Act. 1885 and Indian Wireless Telegraphy Act, 193 3 as amended from time to time and any other law as applicable to broadcasting facilities/services which has or may come into force.
- 19.3 The Government. Ministry of Information and Broadcasting shall have the right to modify at any time the provisions of these guidelines and/or the terms and conditions of permission, if in the opinion of the Government it is necessary or expedient to do so in public interest or in the interest of the security of the State. The decision of the Government shall be final and binding in this regard.

GUIDELINES FOR OBTAINING LICENSE FOR PROVIDING DIRECT-TO-HOME (DTH) BROADCASTING SERVICE IN

INDIA

(as amended upto 6.11.2007)

The Union Government has decided to permit Direct -to- Home (DTH) TV service in Ku Band in India. The prohibition on the reception and distribution of television signal in Ku Band has been withdrawn by the Government vide notification No. GSR 18 (E) dated 9th January, 2001 of the Department of Telecommunications.

The salient features of eligibility criteria, basic conditions/obligations and procedure for obtaining the license to set up and operate DTH service are briefly described below. For further details, reference should be made to the Ministry of Information & Broadcasting.

Following are the eligibility criteria for applicants, conditions which will apply to DTH license and procedural details:

i) Eligibility Criteria:

- Applicant Company to be an Indian Company registered under Indian Company's Act, 1956.
- Total foreign equity holding including FDI/NRI/OCB/FII in the applicant company not to exceed 49%.
- Within the foreign equity, the FDI component not to exceed 20%.
- The quantum represented by that proportion of the paid up equity share capital to the total issued equity capital of the Indian promoter Company, held or controlled by the foreign investors through FDI/NRI/OCB investments, shall form part of the above said FDI limit of 20%.
- The applicant company must have Indian Management Control with majority representatives on the board as well as the Chief Executive of the company being a resident Indian.
- Broadcasting companies and/or cable network companies shall not be eligible to collectively own more than 20% of the total equity of applicant company at any time during the license period. Similarly, the applicant company not to have more than 20% equity share in a broadcasting and/or cable network company.
- The Licensee shall be required to submit the equity distribution of the Company in the prescribed Proforma (Table I and II of Annexure to Form-A) once within one month of start of every financial year.

ii) Number of Licensees:

• There will be no restrictions on the total number of DTH licenses and these will be issued to any person who fulfils the necessary terms and conditions and subject to the security and technical clearances by the appropriate authorities of the Govt.

iii) Period of license:

License will be valid for a period of 10 years from the date of issue of wireless
operational license by Wireless planning and Coordination Wing of Ministry of
Communications. However, the license can be cancelled/suspended by the Licensor at

any time in the interest of Union of India.

iv) Basic conditions/obligations:

• The license will be subject to terms and conditions contained in the agreement and its schedule (Form-B)

v) Procedure for application and grant of licenses:

- To apply to the Secretary, Ministry of I&B, in triplicate, in the prescribed proforma (Form-A)
- On the basis of information furnished in the application form, if the applicant is found
 eligible for setting up of DTH platform in India, the application will be subjected to
 security clearance of Board of Directors as well as key executives of the company
 such as CEO etc. in consultation with the Ministry of Home Affairs and for clearance
 of satellite use with the Department of Space.

(Amended vide order No. 8/12/2006-BP&L dated 31.7.2006)

- After these clearances are obtained, the applicant would be required to pay an initial non-refundable entry-fee of Rs.10 crores to the Ministry of Information and Broadcasting.
- After such payment of entry-fee, the applicant would be informed of intent of Min. of I & B to issue license and requested to approach WPC for SACFA clearance.
- After obtaining SACFA clearance, within one month of the same, the Licensee will
 have to submit a Bank guarantee (Form-C) from any Scheduled Bank to the Ministry
 of Information and Broadcasting for an amount of Rs.40 crores valid for the duration
 of the license.
- After submission of this Bank Guarantee, the applicant would be required to sign a licensing agreement with the Ministry of Information and Broadcasting as per prescribed proforma (Form-B).
 - After signing of such licensing agreement with the Ministry of Information and Broadcasting, the applicant will have to apply to the Wireless Planning & Coordination (WPC) Wing of the Ministry of Communications for seeking Wireless Operational License for establishment, maintenance and operation of DTH platform.
- The Licensee shall pay an annual fee equivalent to 10% of its gross revenue as reflected in the audited accounts of the Company for that particular financial year, in the manner detailed under Article -3 (License Fee) of the "Schedule to the License Agreement"
- The Licensee shall also, in addition, pay the license fee and royalty for the spectrum used as prescribed by Wireless Planning & Coordination Authority (WPC), under the Department of Telecommunications.

vi) Arbitration Clause:

In case of any dispute, matter will be referred to the sole Arbitration of the Secretary, Department of Legal Affairs, Government of India or his nominee, for adjudication. The award of the Arbitrator shall be binding on the parties. The Arbitration proceedings will be governed by the law of Indian arbitration in force at the point of time. Venue of Arbitration shall be India.

FORM-A

Application form for obtaining license to set up DTH platform in Ku Band.

The Secretary
Ministry of Information & Broadcasting
'A' Wing, Shastri Bhawan
New Delhi-110 001

- 1. i) Name of Applicant Company
- ii) Particulars of the Directors & the Chief Executive.
 - a) Chief Executive

Name	Date of Birth	Citizenship and Residence	Permanent Address	Present Address

b) Other Directors.

Sl.No.	Name	Date	Citizenship	Permanent	Present
		of	&	Address	Address
		Birth	Residence		

- 2. i) Address (Office)
- (a) Head Office
- (b) Regional Office
- ii) Telephone Number (s)
- iii) Registration details (enclose certificate of incorporation/registration) 3. Structure of

Equity Capital

- i) Authorized share capital
- ii) Paid up share capital
- 4. Share-Holding pattern: (Enclose details as per Annexure)

Direct in	vestment (as % of total p	aid up capital)	
(a) I	ndian%		
(b)]	Foreign%		
Break-up o	f Foreign Direct Investm	ent	
	%		
Company	%		
NRI	%		
OCB	%		
PIO	%		
Portfolio Ir	vestments		
(a)	Indian%		
(b)	Foreign%		
` '	f Foreign portfolio Inves	tment	
FIIs	<i>U</i> 1		
NRIs			
OCBs			
PIOs			
Particulars	of other business/activiti	es.	
Particulars	of the other broadcasting	r companies	and cable network
	holding share in the appl	•	
_		icant company along wi	ui uie
	share holdings	1	0, 0
Sl.No.	Name of the	Activity	%age of equity
	company	(Broadcasting or	holding in the
		Cable Network)	applicant
			company
Particulars	of equity holding of the	applicant company in otl	ner
broadcastir	g companies and cab	le network companies	
Sl.No.	Name of the	Activity	%age of equity
	company	(Broadcasting or	holding by the
		Cable Network)	applicant
		Cuote i (ct work)	
			company
Details of I	OTH Space Segment , up	link earth station and gro	ound terminal:
	nent of DTH Platform	Ç	
1. Nam	e of the satellite propose	d to be used	
2. GSC	Orbital location		
• •	e & number of transpond		
4. Freque	ncy band of operation:	10.9	5 – 11.2 GHz / 11.45 -

11.7 GHz

	(downlink)(circle appropriately):	12.2 – 12.5 GHz / 12.5 – 12.75
	GHz	
5.	Transponder Center frequencies:	
6.	No. of TV channels in each transponder:	
7.	Details of data rate, FEC, modulation	n, bandwidth
8.	and specific frequency range for each Satellite transmit Max. & Min. EIRP ov satellite transmit antenna/eirp gain contours over India)	
B.	Details of Uplink Station	
•	DTH uplink station location:	
•	Uplink frequency band (circle appropriatel	y): 13.75 – 14 GHz / 14.0 – 14.25GHz / o 14.25 – 14.5 GHz
•	Uplink antenna size:	
•	Uplink antenna gain:	
•	Uplink EIRP (Max.):	
	(Min.):	
C.	Size of downlink (Max.) antenna size (Min.) Proposed no. of channels: (Enclose Lease Agreement and footprint of	f the setallite on which the transponders are
	proposed to be hired)	the saterite on which the transponders are
	I/We,	the applicant(s) do hereby
declare	e that the above facts are correct in all respe	
	r	
Place:		(Signature of Applicant)
Date:		Name
		Office Address:
Enclo	osures:	
	****	*

ANNEXURE TO FORM - A

FORMAT FOR SHAREHOLDING PATTERN TO BE FURNISHED ALONG WITH APPLICATION

TABLE-1

SHAREHOLDING PATTERN OF APPLICANT COMPANY

M/s	AS ON	
FACE VALUE OF THE S	SHARE RS	

S.No.	Category of		Share	Holding	
	Shareholders.				
		Direct In	nvestment		Portfolio
				Investment	
		No.	% of total	No. of	% of total
		of	paid up	Shares	paid up
		Shares	shares		shares
1.	Indian				
	individual				
2.* 3.	Indian				
4.	company				
5.	Foreign				
6.	individual				
7.	Foreign				
8.	company				
9.	NRI				
	OCB				
	FII				
	PIO				
	Any other				
ĺ					

^{*} For Indian company, information as per proforma in Table-2 also to be supplied.

TABLE-2

DETAILS OF SHAREHOLDING PATTERN OF EACH INDIAN COMPANY HOLDING SHARE IN THE APPLICANT COMPANY AS IN SERIAL NO.2 IN COLUMN (1) OF TABLE-1

i)	Name of the company
ii)	Information as on date
iii)	No. and %age of shares held by the company in the applicant company
iv)	Face value of the share Rs
v)	Shareholding pattern of the company

	Category of			(Share Holding	
S.No.	Shareholders.					
		Direct I	nvestment	Portfolio		
				investment		
		No.	% of total	No. of	% of total	
		of	paid up	Shares	paid up	
		Shares	shares		shares	
1.	Indian					
2.	individual					
3.	Indian					
4.	company					
5.	Foreign					
6.	individual					
7.	Foreign					
8.	company					
9.	NRI					
	OCB					
	FII					
	PIO					
	Any other					

Note: Repeat same information about each Indian company holding share in the applicant company

FORM-B

LICENSE AGREEMENT

This Agreement is made on this day of, 2001 between the President of
India acting through, Ministry of Information and
Broadcasting, Government of India, Shastri Bhawan, New Delhi (hereinafter called the
Licensor) of the One Part and M/s, a company registered under the
Companies Act, 1956 and having its registered office at
(hereinafter called the Licensee which expression shall unless repugnant to the context
include, its successors in business, administrators, liquidators and assignees or legal
representatives) of the Other Part.
WHEREAS pursuant to the request of the Licensee, the Licensor has agreed to grant license
to the Licensee under Section 4 of the Indian Telegraph Act 1885, and the Indian Wireless
Telegraphy Act, 1933 on the terms and conditions appearing hereinafter to establish, maintain
and operate DTH Platform and the Licensee has agreed to accept the same.
NOW THIS AGREEMENT WITNESSETH AS UNDER:
Unless otherwise mentioned in the subject or context appearing hereinafter, the Schedule
annexed hereto including the terms and conditions prescribed by the Ministry of
Information and Broadcasting and the terms and conditions of the Wireless Operational
License to be issued by the Wireless Planning & Coordination Wing in the Ministry of
Communications, Government of India shall form part and parcel of this License Agreement.
Provided, however, in case of conflict or variance or an issue relating to the same, the terms
set out in the main body of this Agreement read with all the Schedules annexed hereto shall
prevail.
The Licensee will be subject to provisions of any legislation, which may be brought in future
in regard to broadcasting.
IN WITNESSTH WHEDEOE the parties hard bays soused this Agreement to be executed
IN WITNESSTH WHEREOF the parties hereto have caused this Agreement to be executed
through their respective authorised representatives, the day, month and year as mentioned above.
mentioned above.
Signed Executed and Delivered on behalf
of President of India
by
Signed Executed & Delivered on behalf
of by its
holder of General Power of Attorney
dated executed in accordance
with Board Resolution dated
by

SCHEDULE TO FORM - B

TERMS AND CONDITIONS

ARTICLE-1

ELIGIBILITY CONDITIONS

- 1.1 The Licensee company shall be an Indian company, registered under the Indian Companies Act, 1956.
- 1.2 The total Foreign Investment, including FDI/NRI/OCB/FII in the paid up equity of the Licensee Company, shall not be more than 49%.
- 1.3 The FDI component of the foreign equity in the total paid up equity of the Licensee company shall not exceed 20%.

 Explanation: The quantum represented by that proportion of the paid up equity share capital to the total issued equity capital of the Indian promoter Company, held or controlled by foreign investors through FDI/NRI/OCB investments, shall form part of the above said FDI limit of 20%.
- 1.4 The Licensee shall not allow Broadcasting Companies and/or Cable Network Companies to collectively hold or own more than 20% of the total paid up equity in its company at any time during the License period. The Licensee shall submit the equity distribution of the Company in the prescribed proforma (Table I and II of Form-A) once within one month of start of every financial year. The Government will also be able to call for details of equity holding of Licensee company at such times as considered necessary.
- 1.5 The Licensee company not to hold or own more than 20% equity share in a broadcasting and/or Cable Network Company. The Licensee shall submit the details of investment made by the Licensee company every year once within one month of start of that financial year. The Government, will also be able to call for details of investment made by the Licensee company in the equity of other companies at such times as considered necessary.
- 1.6 The applicant company shall always have Indian management control with majority representatives on the Board, as well as the Chief Executive of the company being a resident Indian citizen.
- 1.7 Any change in the equity structure of the Licensee Company as well as amendment to shareholders agreement, wherever applicable, shall only be carried out in consultation and with prior approval of Licensor.

(Added by Order No. 8/3/2004-BP&L dated 1st June 2005)

ARTICLE-2

TERM OF LICENSE

- 2.1 The validity period of License shall be ten (10) years, on non-exclusive basis, and shall be reckoned from the date of issue of Wireless Operational License by the WPC, unless terminated earlier for default or for insolvency or for convenience or for transfer of the License.
- 2.2 The license shall not be transferred without prior approval of the Licensor.

ARTICLE 3

LICENSE FEE

- 3.1 The Licensee shall pay an initial non-refundable entry fee of Rs.10 crores before the issue of letter of intent to him by Licensor, and, after the issue of the Wireless Operational License by the Wireless Planning and Coordination (WPC) Wing of the Ministry of Communications, an annual fee equivalent to 10% of its gross revenue in that particular financial year in the manner detailed hereunder.
- 3.1.1 Gross Revenue for this purpose would the gross inflow of cash, receivable or other consideration arising in the course of ordinary activities of the Direct to Home [DTH] enterprise from rendering of services and from the use by others of the enterprise resources yielding rent, interest, dividend, royalties, commissions etc. Gross revenue shall, therefore, be calculated, without deduction of taxes and agency commission, on the basis of billing rates, net of discounts to advertisers. Barter advertising contracts shall also be included in the gross revenues on the basis of relevant billing rates. In the case of licensee providing or receiving goods and service from other companies that are owned or controlled by the owners of the licensee, all such transactions shall be valued at normal commercial rates and included in the profit and loss accounts of the licensee to calculate its gross revenue.
- 3.1.2 Every licensee shall maintain separate financial accounts for the channel, which shall be audited by the Statutory Auditors. At the end of each financial year, the company shall provide the statement of gross revenue forming part of the final accounts of the licensee as per the format in Form D, duly certified by the Statutory Auditors. It may be noted that the income heads specified in Form D are only indicative and illustrative and the Auditor would include all the relevant heads qualifying for gross revenue whether or not specifically included in the said format. In addition, the income from the Related Parties shall have to tally with the Related Parties schedule as per Accounting Standards no. 18. Besides, the company shall disclose the following information at the end of each financial year, duly certified by the Statutory Auditor.

Total trade and other discounts.

Total agency commission.

Total Related party transaction.

3.1.3 So as to verify that the Gross Revenue is correctly disclosed to it, the Government of

India shall have the right to get the accounts of any licensee audited by CAG or any other professional auditors at its discretion. In case of difference between the Gross Revenue determined by the Statutory Auditors and the Government appointed auditors, the views of the government appointed auditor, subject to opportunity of hearing to the licensee shall prevail and the expenses on such audit shall be borne by the licensee.

(Clauses 3.1.1 to 3.1.3 Added by Order No. 8/ 12/2006-BP&L dated 31st July 2006)

- 3.1A.1 The First payment of Annual license fee for the financial year (FY) shall be made on the basis of provisional accounts for the FY certified by the Statutory Auditors, within one month of the end of that FY.
- 3.1A.2 Annual License fee for the FY shall be finally determined on the basis of final annual accounts of the FY audited by the Statutory Auditors, which shall not be later than 30th September of the following FY. If the amount so determined is found to be higher than the amount already deposited as per clause 3.1A.1, the difference amount along with simple interest @ 1% per month on the difference for the period of delay calculated from 1st of May of the following FY upto and including the date of such payment shall be paid in one lumpsum within a period of 15 days from the date of finalization of audited accounts, or 15th October of the following FY whichever is earlier.
- 3.1A.3 Where the total annual fee deposited as per clause 3.1A.1 is more than the amount determined on the basis of audited accounts of the FY, the difference may at the request of the licensee be adjustable against the annual licence fee due for the following FY.
- 3.1A.4 In case any amount is to be deposited by the licensee as per provisions of clause 3.1.3 it shall be deposited within 15 days of such determination along with simple interest at the rate of 1% per month for the period from 1st May following the FY for which such determination has been made, upto and including the date of payment.

(Clauses 3.1A.1 to 3.1A.4 Added by Order No. 8/ 12/2006-BP&L dated 6th November, 2007)

3.2 The Licensee shall also in addition pay the license fee and royalty for the spectrum used as prescribed by Wireless Planning & Coordination Authority (WPC), under the Department of Telecommunications.

ARTICLE-4

BANK GUARANTEE

4.1 The Licensee shall, within one month of issual of SACFA clearance by W.P.C., submit to the Ministry of I & B, a Bank Guarantee from any Scheduled Bank in

- Form-C for an amount of Rs.40 crores valid for the duration of the license.
- 4.2 The Licensor shall be at liberty to encash the Bank Guarantee in full or part in the event of non-payment of the license fee or violation of any of the license condition.

ARTICLE-5

COMPLIANCE WITH PROGRAMME AND ADVERTISING CODES

- 5.1 The Licensee shall ensure adherence to the Programme Code (PC) and Advertisement Code (AC), laid down by the Ministry of Information & Broadcasting from time to time.
- 5.2 The Licensee shall invariably ensure that the subscribers of the service do not have access to any pornographic channel or to secret/anti-national messaging and the like. If the Licensee fails to do so, the License shall stand cancelled.

(Added by Order No. 8/3/2004-BP&L dated 1st June 2005)

ARTICLE-6

PROHIBITION OF CERTAIN ACTIVITIES

- 6.1 The Licensee shall not carry any channels prohibited by the Ministry of Information & Broadcasting.
- 6.2 The Licensee shall ensure that its facilities are not used for transmitting any objectionable or obscene content, messages or communication inconsistent with the laws of India. The use of the facility or service for anti national activities would be construed as an offence punishable under the Indian Penal Code and applicable laws and will attract immediate termination of License.
- 6.3 The Licensor reserves the right to prohibit the transmission or reception of programmes in the interest of national security or in the event of emergency/war or similar type of situation. Notwithstanding any agreement between the Licensee and the content providers, the Licensee shall stop forthwith, transmission of TV channels or any content, as and when directed to do so by the Licensor or any other designated lawful authority.
- 6.4 Except with prior approval of Licensor, the Licensee shall not either directly or indirectly assign or transfer its right in any manner whatsoever under this Agreement to any other party or enter into any Agreement for sub-license and/ or partnership relating to any subject matter of the License to any third party either in whole or in part. Any violation of the terms shall be construed as breach of the License Agreement and License of the Licensee shall be terminated immediately.
- 6.5 The Licensee shall not carry the signals of a broadcaster against whom any regulatory body, tribunal or court have found the following
 - (i) refused access on a non-discriminatory basis to another DTH operator contrary to the Regulations of TRAI
 - (ii) violated the provisions of any law relating to competition including the

Competition Act.

(Added by Order No. 8/3/2004-BP&L dated 1st June 2005)

6.6 The Licensee shall not enter into any exclusive contract for distribution of TV Channels.

[Explanation: It shall be the sole responsibility of the licensee to ascertain before carrying its signals on its platform whether any broadcaster(s) has been found to be in violation of the above conditions or not . In respect of TV Channels already being carried on the platform, the licensee shall ascertain from every source including the licensor, TRAI, Tribunal or a court, whether concerned broadcasters or the channels is in violation of the above conditions. If any violation so comes to its notice, the licensee shall forthwith discontinue to carry the channels of the said broadcaster]

(Added by Order No. 8/3/2004-BP&L dated 1st June 2005)

6.7 No licensee shall carry or include in his DTH Service any television broadcast or channel which has not been registered by the Central Government for being viewed within the territory of India.

Provided that the licensee may continue to carry or include in his DTH Service any television broadcast or channel, which has made an application for registration to the Central Government on or before the date of issue of this Order, for a period of six months from the date of such Order or till such registration has been granted or refused, whichever is earlier.

Provided further that TV Channels uplinking from India, in accordance with permission for uplinking granted before 2nd December 2005, shall be treated as "registered" Television channels and can be carried or included in the DTH Service.

(Added by Order No. 8/3/2004-BP&L dated 11th May 2006)

ARTICLE-7

TECHNICAL STANDARDS AND OTHER OBLIGATIONS

- 7.1 The Open Architecture (non- proprietary) Set Top Box, which will ensure technical compatibility and effective interoperability among different DTH service providers, shall have such specifications as laid down by the Government from time to time.
- 7.2 The Licensee shall ensure subscriber's interests though a Conditional Access System (CAS), which is compatible with an open Architecture (non-proprietary) Set Top Box.
- 7.3 The Licensee shall ensure subscriber's interests through a Subscriber Management System (SMS) for an efficient, responsive and accurate billing and collection system.
- 7.4 The Licensee shall not use any equipment, which is identified as unlawful.
- 7.5 All content provided by the DTH platform to the subscribers, irrespective of its

source, shall pass through the encryption and conditional access system, located within the Earth Station, situated on Indian soil.

- 7.6 The Licensee shall provide access to various content providers/channels on a non-discriminatory basis.
- 7.7 The Licensee shall adhere to any guidelines/regulations which may be laid down by the Licensor in the interest of consumer such as pricing of bouquet(s) or tier(s) of channels, etc.
- 7.8 The Licensee shall carry or include in his DTH service the TV channels which have been notified for mandatory and compulsory carriage as per provisions of section 8 of the Cable Television Networks (Regulation) Act, 1995 as amended, except for the regional TV channels, failing which the licensor shall be at liberty to take action as per clause 20.1 of this agreement

Provided further that the licensee shall carry other channels of Prasar Bharati not covered under this clause, on most favourable financial terms offered to any other channel.

(Amended vide Order No. 8/12/2006-BP&L dated the 10th September, 2007.)

ARTICLE-8

MONITORING AND INSPECTION

- 8.1 The Licensee shall provide the necessary facility for continuous monitoring of the DTH broadcasting service at its own cost and maintain the recordings of programmes and advertisements carried on the platform for a period of 90 days from the date of broadcast and produce the same to the Licensor or its authorised representative, as and when required.
- 8.2 The Licensee shall furnish any such information at periodic intervals as may be required by the Licensor concerning Channels or content being transmitted or provided under the service, technical parameters etc. in the format as may be prescribed by the Licensor from time to time.
- 8.3 Licensee shall provide access to the Licensing Authority or its duly authorised representative. to all its facilities including equipments, records, systems, etc.
- 8.4 The Licensee will, if required by the Licensor or its authorised representative, provide necessary facilities for continuous monitoring for any particular aspect of the Licensee's activities and operations.
- 8.5 The Licensor will ordinarily carry out the inspection after reasonable notice except in circumstances where giving such a notice will defeat the very purpose of the inspection.

ARTICLE-9

NATIONAL SECURITY AND OTHER CONDITIONS

- 9.1 The Licensor reserves the right to take over the entire services and networks of the Licensee or revoke / cancel / suspend the License in the interest of national security or in the event of an emergency / war or low intensity conflict or similar type of situations. Further, the Licensor reserves the right to direct the Licensee to close down the service if implications of security so requires. Any specific order or direction from the Government issued in this regard shall be strictly complied with by the Licensee.
- 9.2 The Licensee shall not use any equipment, which are identified as unlawful and/or render network security vulnerable.
- 9.3 All foreign personnel likely to be deployed by way of appointment, contract, consultancy, etc. by the Licensee for installation, maintenance and operation of the Licensee's services shall be required to obtain security clearance from the Government of India prior to their deployment.

ARTICLE-10

VALUE ADDED SERVICES

10.1 The DTH facility shall not be used for other modes of communication, including voice, fax, data, communication, Internet, etc. unless specific license for these value-added services has been obtained from the competent authority.

ARTICLE -11

PREFERENCE TO INDIAN SATELLITES AND INTERSYSTEM CO-ORDINATION

- 11.1 Though Licensee can use the bandwidth capacity for DTH service on both Indian as well as foreign satellites, proposals envisaging use of Indian satellites will be extended preferential treatment.
- 11.2 The Licensee shall ensure that its operation will conform to the provisions of intersystem co-ordination agreement between INSAT and the satellite being used by the Licensee.

ARTICLE 12

WPC WING'S LICENSE

12.1 A separate specific operational license shall be required from the WPC Wing of Ministry of Communications for establishment, maintenance & operation of the DTH platform/facility under usual terms and conditions of that license. Grant of WPC operational license will be governed by normal rules, procedures and guidelines and

will be subject to completion of all formalities. As may be prescribed by the WPC Wing, the Ministry of Communication for this purpose, an application shall be made to the "Wireless Advisor to the Government of India, WPC Wing, Ministry of Communications, Dak Bhavan, Parliament Street, New Delhi-110001" in a prescribed application form available from WPC Wing within one month from the date of signing of this agreement.

- 12.2 The Licensee shall obtain clearances/approvals, as may be prescribed or required, from the Wireless Planning Coordination Wing or from the Department of Space.
- 12.3 The Wireless Planning & Coordination (WPC) Wing of the Department of Telecommunication, Ministry of Communication shall issue SACFA clearance to the Licensee as soon as possible after receiving the application the same and shall grant the final Wireless Operational License, after signing of this agreement, subject to fulfilment of the necessary terms and conditions including installation of equipment etc. as may be required by WPC.
- 12.4 The Wireless and Planning Coordination Wing shall have the right to inspect, from time to time, the installation with a view to ensuring conformity with the WPC's license
- 12.5 The Licensee shall not cause harmful interference to other authorised users of radio spectrum. WPC Wing will have the sole discretion to take practicable and necessary steps for elimination of harmful interference, if any, to other licensed users.
- 12.6 The Licensee shall furnish to the WPC Wing the full technical and operational details of TV channels and other channels proposed to be uplinked through his/her Hub/Teleport in the prescribed format.

ARTICLE-13

COMMISSIONING OF DTH PLATFORM

13.1 The Licensee shall establish and complete the installation of the uplink earth station in India including the monitoring facility etc. and commission the DTH Platform within twelve months from the date of issue of the SACFA clearance by the WPC after obtaining wireless operational license and would submit a report to the Licensor in this regard.

ARTICLE-14

REQUIREMENT TO FURNISH INFORMATION TO THE LICENSOR

14.1 The Licensee shall furnish to the Licensor, such information at periodic intervals or at such times as the Licensor may require, including, but, not limited to, documents, reports, accounts, estimates, returns or other information such as change in Chief Executive, Board of Directors, equity holding pattern etc.

ARTICLE-15

TERMINATION OF LICENSE

- 15.1 Notwithstanding any other recourse under the terms and conditions of the license or any other law, the Licensor shall have the power, after recording the reasons in writing, to revoke/suspend the license in the event of breach of any terms and conditions of the license. However, before taking such action the licensing authority will give the Licensee an opportunity of being heard. The decision of the licensing authority shall be final.
- 15.2 The Licensor may, at any time, terminate the License without compensation to the Licensee in case Licensee becomes bankrupt or otherwise insolvent or applies for being adjudicated as insolvent/ bankrupt, provided such termination shall not prejudice or affect any right of action which has accrued or will accrue thereafter to the Licensor.

ARTICLE-16

FORCE MAJEURE

16.1 If at any time, during the continuance of this License, the performance of any obligation either in whole or in part by any party is prevented or delayed, by reason of war, hostility, acts of enemy, civil commotion, sabotage, fire, flood, act of state or centre, explosion, epidemic, quarantine restriction, strikes materially affecting the performance of

any obligations of affected party, or act of God (all or any of these hereinafter referred to as Force Majeure Event), neither party shall, by reason of such Force Majeure Event be entitled to terminate this License, nor shall either party have any claim for damages against the other, in respect of such non- performance or delay in performance provided notice of happenings of any such Force Majeure Event is given by either party to the other, within 21 days from the date of occurrence thereof.

ARTICLE-17

DISPUTES WITH OTHER PARTIES

17.1 In the event of any dispute of the Licensee with any party other than Licensor due to any reason whatsoever, the dispute will be sorted out among themselves and Licensor will have no liability in any manner. The Licensee undertakes to indemnify Licensor in respect of any action against Licensor for acts of commission or omission on the part of the Licensee, its agents and servants.

ARTICLE-18

DISPUTE RESOLUTION AND JURISDICTION

18.1 In the event of any question, dispute or difference arising under this License, or in connection thereof, except as to the matter, the decision of which is specifically provided under this License, the same shall be referred to the sole arbitration of the Secretary, Department of Legal Affairs, Government of India or his nominee.

- 18.2 There will be no objection to any such appointment on the ground that the Arbitrator is a Government servant. The award of the arbitrator shall be final and binding on the parties. In the event of such Arbitrator, to whom the matter is originally referred to, being transferred or vacating his office, or being unable to act for any reason whatsoever, Secretary, Department of Legal Affairs shall appoint another person to act as Arbitrator.
- 18.3 The Arbitration and Conciliation Act, 1996, the rules made thereunder and any modification thereof, for the time being in force, shall be deemed to apply to the arbitration proceedings as above. The venue of arbitration shall be New Delhi or such other place as the Arbitrator may decide. The arbitration proceedings shall be conducted in English language.
- 18.4 Upon any and every reference as aforesaid, the assessment of costs, interest and incidental expenses in the proceedings for the award shall be at the discretion of the Arbitrator
- 18.5 The Courts at New Delhi shall have the jurisdiction over all disputes.

ARTICLE - 19

CONFIDENTIALITY

19.1 The Licensee shall keep all the secret and security related information exchanged between the Licensor and itself as confidential and shall not disclose such information to any third party or to the media.

ARTICLE-20

PENALTY

20.1 For violation of license conditions, in addition to any other action which may include revocation of license, a penalty upto Rs.50 crores can be imposed by the Licensor on the Licensee. However, before taking such action the licensing authority will give the Licensee an opportunity of being heard. The decision of the licensing authority shall be final.

ARTICLE-21

MISCELLANEOUS

- 21.1 Notwithstanding any clause anywhere else in the License, the License will be subject to the condition that as and when any regulatory authority to regulate and monitor the Broadcast Services in the country is constituted, the Licensee's will have to adhere to the norms, rules and regulations prescribed by such authority.
- 21.2 This license is subject to requirements and provisions of any law which may be enacted in future for regulating and guiding broadcasting in India.
- 21.3 The Licensee shall obtain the necessary environmental clearances, wherever required. The Licensee shall also comply with Copyright Act, the Electricity Act, Factories Act and other relevant laws of the land. In case of non-compliance of any of the aforesaid requirement, the Licensor shall have the right to revoke the License of the Licensee.

PROFORMA FOR BANK GUARANTEE

(FORM - C)

Bank Guarantee for Direct-to-Home (DTH) Broadcasting Service at
To:
The President of India
Acting through
Shastri Bhavan New Delhi - 11001
In consideration of the President of India acting through (the Licensor) having agreed to grant a License to
*[Name and address of Licensee] (hereinafter called "the Licensee")
") to establish, maintain and operate DTH Broadcasting Service at
on the terms and conditions of the License agreement to be executed between the Licensor and the Licensee, (here in after called the "License Agreement") wherein it has been stipulated that the Licensee shall furnish to the Licensor with a Bank Guarantee from a scheduled Bank for the sum specified therein as security for the due observance and performance of the terms and conditions of the said License.
WHEREAS we Bank, (indicate the name, address and other particulars of
the Bank) which expression shall, unless repugnant to the context or meaning thereof, include
all its successors, administrators and executors, a body corporate constituted under the
Banking Companies (Acquisition & Transfer of Undertaking) Act, 1970 (hereinafter referred
to as 'the Bank") having its Head Office at and a branch office
amongst other places at hereby irrevocably and unconditionally
guarantee to the Licensor that the Licensee which expression shall, unless repugnant to the
context or meaning thereof, include all its successors, administrators, executors and assignees
shall render all the necessary services in accordance with the terms and conditions of the
License and which may be required for and in connection with the said License and
performance thereof to the satisfaction of the Licensor.

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Licensee up to a total **Rs. 40 crore** (**Rupees Forty crores only**) (**Amount of Guarantee**) payable, and we undertake to pay you immediately, upon your first written demand and without cavil, demur, argument, reservations, recourse, contest or protest any sum or sums within the limits of **Rs. 40 crore** (**Rupees Forty crores only**) (**Amount of Guarantee**) as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein and /or without any reference to the licensee. Further, any such demand made by the Licensor on the bank shall be conclusive and binding notwithstanding any difference between the Licensor and the licensee or any dispute pending before any court arbitrator or any other matter whatsoever. This guarantee shall not be determined/discharged/affected by the liquidation, winding up, dissolution or insolvency of the licensee and will remain valid, binding and operative against the Bank".

We, the Bank, do hereby agree that the decision of the of the Licensor as to whether the

Licensee has failed to or neglected to perform or discharge his duties and obligations as aforesaid and/or whether the service is free from deficiencies and defects and is in accordance with or not of the terms and conditions of the said License and as to the amount payable to the Licensor by the Bank hereunder, shall be final and binding on the Bank.

We hereby waive the necessity of your demanding the said debt from the Licensee before presenting us with the demand and guarantee that we are the primary oblige and not just the surety of the Licensee and Licensor shall be entitled to enforce this guarantee against the Bank as a principal debtor, in the first instance, without proceeding against the licensee.

We further agree that no change or addition to or other modification of the terms of the License or of the works to be performed thereunder or of any of the License documents shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification. Etc.

We	Bank,	do	hereby	declare	and	agree	that:

- (a) The Guarantee herein contained shall remain in full force and effect till the expiry of the license period of Ten years. It shall also continue to be enforceable till all the dues of the Licensor under and by virtue of the said License have been fully paid and its claims satisfied or discharge or till Licensor informs that all the terms and conditions of the said License have been fully and properly carried out by the said Licensee and accordingly discharged this guarantee.
- (b) The Licensor shall have the fullest liberty without our consent and without discharging in any manner our obligations hereunder to vary any of the terms and conditions of the said License or to extend time of performance of any obligations by the said Licensee from time to time or to postpone for any time or from time to time any of the powers exercisable by the Licensor against the said Licensee and to forbear or to enforce any of the terms and conditions relating to the said License and we shall not be relieved from our liability by reason of any variation or extension being granted to the said Licensee or forbearance act or omission on the part of the Licensor or any indulgence by the Licensor to the said Licensee or to give such matter or thing whatsoever which under the law relating to sureties would but for this provision, have effect of so relieving us.
- (c) Any claim which we have against the Licensee shall be subject and subordinate to the prior payment and performance in full of all the obligations of us hereunder and we will not without prior written consent of the Licensor exercise any legal right or remedy of any kind in respect of any such payment or performance so long as the obligations of us hereunder remains owing and outstanding.
- (d) This guarantee shall be irrevocable and the obligations of us herein shall not be conditional of any prior notice by us or by the Licensee. We further agree that this guarantee shall not be affected by any change in our constitution, the constitution of the licensee or that of the Licensor.
- (e) The Bank will not revoke the guarantee during the currency except with the previous

The bank under its constitution power gives this guarantee and Sh. , who has signed on behalf of the bank is duly authorised to execute this guarantee.
This guarantee shall not be discharged or affected due to any change in the name, constitution or address of the bank or the Licensee.
This guarantee shall be valid for a period of ten years from this date and until 28 days after the date of issue of the Defect Liability Certificate by the
SIGNATURE AND SEAL OF THE GUARANTOR
NAME OF BANK
ADDRESS
DATE
In the presence of:
1.
(Name and Occupation)
2.
(Name and Occupation)
The Licensee shall also provide these details as per annexed Table I & II, every year within one month of start of that financial year ± The Licensor shall also provide these details every year within one month of start of that financial year New Delhi, dated the 1st June, 2005.

consent of the Licensor.

FORM -D

STATEMENT OF GROSS REVENUE FORMING PART OF THE FINAL ACCOUNTS OF M/S. ______.

SL. Income Heads	Tariff	Discounts	Agency Taxes	Net as
N.	rate/ rate		commis-	per P
	card	trade Others	sion	& L a/c

[Amount Rupees in lacs]

- 1. Advertisement
- 2. Promotional events
- 2.1. Musical/Star Events
- 2.2. Sponsored programmes
- 3. Marketing Rights
- 4. Commission
- 5. Royalties
- 6. Sale of antenna, set top boxes etc.
- 7. Rent Premises
- 8. Rent-Equipment
- 9. Interest/Dividend
- 10. Related Party Transactions
- 10.1 Goods sold
- 10.2 Services tendered
- 10.3 Production
- 10.4 Marketing
- 10.5 Others

Note: 1. The income heads are only indicative and illustrative and the Auditor would include all the relevant Heads of the licensee.

2. The income from the Related Parties shall tally with the Related Parties as per accounting standards no. 18.

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