



Telecom Regulatory Authority of India

Consultation Paper
on
Headend-In-The-Sky (HITS)

New Delhi: July 24, 2007

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Preface

1. Over the last few years, the number of channels being offered on cable television has rapidly multiplied. Digitalisation will enable carriage of more number of channels over cable. Digital transmission offers a number of advantages over analogue transmission. These include better reception quality, increased channel carrying capacity, new features such as programme guides, multi view, interactive services as well as potential to provide triple play: voice, video and data. The television production/broadcasting is mostly digital. At few places, digital technology is being used also for distribution.

2. Recently, Conditional Access System (CAS) has rolled out in some area of Delhi, Mumbai and Kolkata. Earlier, in Chennai, the Multi System Operators (MSOs) have also put in place the digital headends to meet the demands of CAS. A Group on Digitalization and Voluntary CAS has recently submitted a report emphasizing the need to push CAS in 55 more cities apart from four metros. If this is to be achieved in the conventional way, then it would require setting up of digital headends by each MSO separately for each city or for a group of neighbouring cities.

3. Headend In the Sky (HITS) is another delivery platform to distribute the signals straight to the cable operators to meet the requirement of CAS in consumer interest. This has the advantage of spreading CAS and digitalisation throughout the country at one go because of the country-wide footprints of HITS. Ministry of Information and Broadcasting in the Government of India has asked TRAI to formulate and recommend the policy guidelines for HITS operations. This consultation paper raises issues relating to policy framework for the guidelines and licensing terms and conditions for HITS operation. Accordingly, the Telecom Regulatory Authority of India (TRAI) solicits the views of all the stakeholders on the issues raised in consultation paper.

4. Written comments on the issues raised for consultation may please be furnished to Secretary, TRAI by 10th August 2007. The comments may preferably be sent in electronic form. [E-mail: traicable@yahoo.co.in or pvt_1967@yahoo.com]. The Fax numbers of TRAI are 011-23220442/011-23213294.

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Chapter 1. Introduction

- 1.1 The cable industry in India has an enormous reach today. As per the industry estimates, there are 120 Million TV Homes in the country. Of this, 71 million are served by cable TV network, about 6 million by DTH and the rest by terrestrial TV.
- 1.2 Apart from some ground-based channels, there are, at present, about 225 satellite channels registered under uplinking /downlinking guidelines of Government of India.
- 1.3 Apart from the terrestrial network of Doordarshan (a public service broadcaster) and newly emerging technologies like IPTV etc, there are at present basically two delivery platforms available for distribution of TV channels to the subscribers viz. cable distribution network and Direct to Home (DTH) service. The distribution chain in the cable TV industry for reaching the channels to the subscribers consists of Broadcasters, Multi System Operators (MSOs) and the local cable operator. In DTH, the broadcasters and the DTH operators are the two players in distribution chain.
- 1.4 The penetration of cable TV homes has moved to 71 million in 2007 over a period of about 16-17 years. The phenomenal growth of cable TV network in the absence of well directed regulatory framework has led to the problems of lack of transparency, determination of actual number of cable connections, monopoly in the last-mile cable operations, vertical integration at higher levels of distribution chain and a highly fragmented state at the lower level of the same. Non-addressability is the main reason for controversy over actual number of cable TV homes. This has led to a situation where disputes are rampant, revenues are uncertain and investments for up-gradation are not forthcoming.
- 1.5 The first effort in the real sense to regulate the cable TV sectors started with the Cable Television Networks (Regulation) Act. 1995. Telecom Regulatory Authority of India (TRAI) was entrusted with the responsibility to regulate broadcasting and cable services in January, 2004. TRAI has since then taken a number of initiatives for regulating the sector. The key measures are following:
 - Protecting consumers' interests and minimizing disputes among-service provides by pegging tariff for cable services to a reference date (i.e., 26.12.2003).

- Comprehensive recommendations to GOI on the issues relating to broadcasting and distribution of TV channels.
- Promoted competition through the notification on regulation of Interconnection issues which inter alia provided for making signals available on non-discriminatory basis
- Recommendations to GOI to facilitate the participation by the private sector in Terrestrial television
- Recommendations to GOI on Digitalisation of Cable Services
- Regulatory framework for the cable services in CAS notified area in the form of tariff dispensation for pay channels, basic service tier and supply of set top boxes; Regulation providing standard terms and conditions of Interconnection Agreement; standard for quality of service to be observed by the service providers.

1.6 The issue of taking steps for spread of digitalisation in cable TV has been engaging the attention of TRAI for sometime. During the consultation process to promote digitalization of the cable television, Headend In The Sky (HITS) emerged as an alternative means of digital delivery of TV channels. TRAI in its recommendations on “Digitalisation of Cable Television” dated 14th September 2005 suggested the need for a clear policy framework for HITS . The relevant Para 5.8.4 of the recommendations is as follows:

“5.8.4 Headend in the Sky (HITS)

Another issue that had come up during the process of consultation is the need for a policy framework for HITS which is an alternative means of delivery. Although one license was issued for HITS this service is not functional. Even so there is need for a clear policy framework for HITS which could be on the lines of the permission already given by the Government to one operator. Operators can then choose whether they would like to use this facility or the conventional one of a terrestrial headend.”.

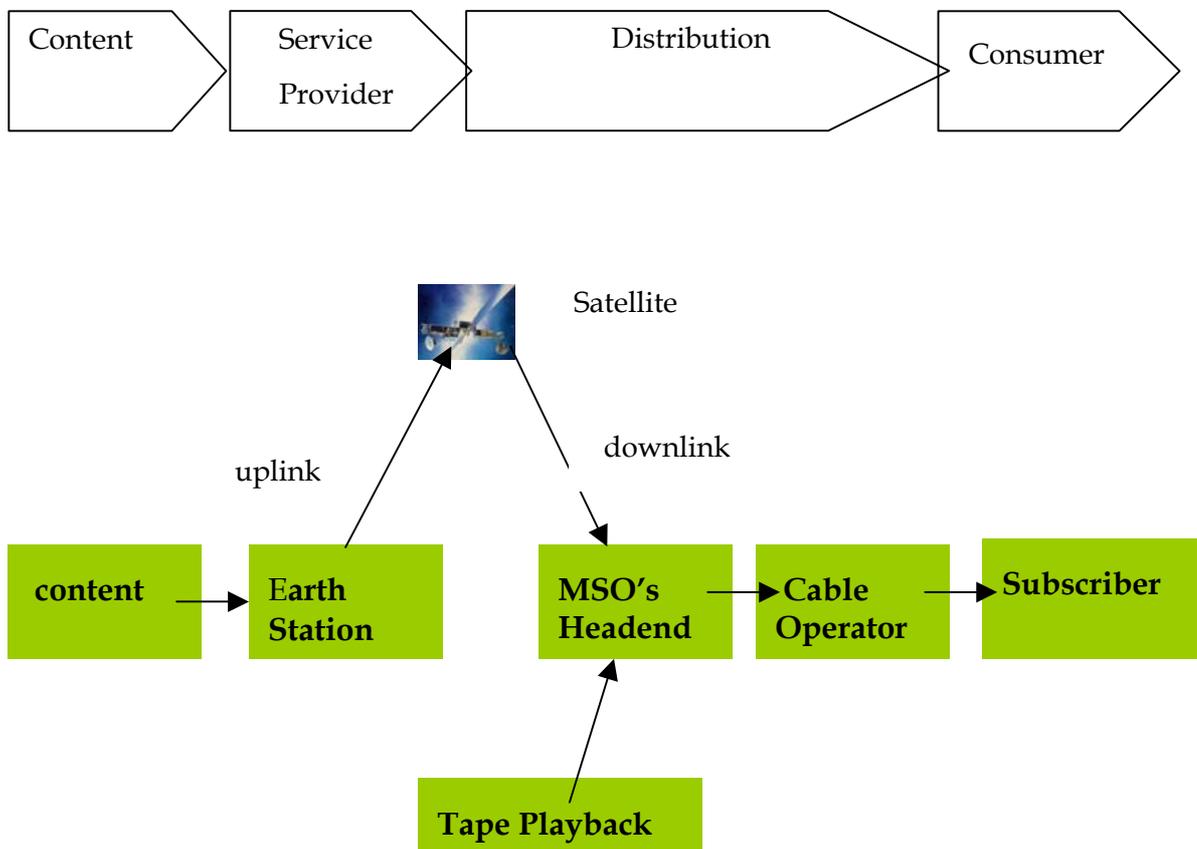
- 1.7 Government of India in Ministry of Information & Broadcasting in its letter No. 9/2/2005-BP&L dated 15th May, 2007 (at Annexure A) has requested TRAI to work out the detailed policy framework required for HITS so as to facilitate the Ministry to take a view. TRAI is accordingly initiating a process of consultation to evolve a detailed policy framework for HITS as a platform for delivery of TV channels digitally to the cable operators.
- 1.8 Chapters 2 and 3 give a basic overview of the existing distribution platform for delivery of channels, and compares HITS operation with the existing operational platforms.
- 1.9 Chapter 4 of the paper highlights the issues for consultation relevant to the formulation of policy framework for the guidelines and licensing terms and conditions for HITS operation.

Chapter 2. What is HITS?

Delivery of TV Channels – existing cable system

2.1 Under the existing system of cable TV distribution, there are nearly 7000 headends spread all over the country engaged in the distribution/transmission of channels to cable operators through the cable network, for ultimate delivery to the viewers. Few MSOs and independent cable operators also give signals directly to the subscriber without going through the local cable operator. In the current method of distribution, the viewers pay a lump sum amount to the cable operator to receive the signals of various Free-to-Air channels and Pay channels provided by the cable operator.

Figure 1: Cable TV Distribution Schematic



2.2 The typical distribution chain of cable TV network consists of (though there are some variations to it depending upon the business model adopted by a service provider):

- (i) The headend of MSOs comprising of satellite dishes, Receivers, Integrated Receivers and Decoders (IRDs), Modulators, Fiber

Transmission Equipment etc. The satellite dishes are used to downlink and receive the channels [both Free to Air (FTA) Channels and Pay Channels].

(ii) The signals received from broadcasters' satellites by the dishes are fed into the Receivers for FTA Channels and IRDs for the Pay Channels for encryption. The output from the Receivers and IRDs is modulated, formed into a bundle of channels and fed into fiber/ cables to reach the last mile cable operators.

(iii) The cable operators then re-transmit the same without much value addition, through co-axial cables to individual customers, using amplifiers in the network to maintain quality of signals.

2.3 There are around 6000 estimated MSOs across India, who are catering to the need of around 60000 cable operators in the country who in turn are transmitting the TV signals to 71 million cable TV subscribers.

2.4 In a typical analog transmission platform, 65-70 channels can be delivered to the consumers. This capacity can increase nearly ten times if the system is upgraded to provide digital transmission. The analogue cable distribution system suffers from several handicaps, some of which are as follows:

(i) The picture quality is poor if the network is not properly maintained. The picture quality also suffers as we move away from prime band.

(ii) In the absence of addressability, the subscribers do not have the freedom to choose channels. They have to necessarily pay for all the channels contained in the bundle formed by the MSO and transmitted through the cable operator to the subscriber.

(iii) Again, the lack of addressability means that there is a great deal of uncertainty about the exact number of subscribers. This leads to the controversy of the subscriber base at various levels in the distribution chain.

2.5 The television production is mostly digital and the transmission to subscribers by cable operators can be analog and/or digital. The digital transmission offers a

number of advantages over analogue. These include better reception quality, increased channel carrying capacity, new features such as programme guides, multi view, interactive services as well as potential to provide triple play: voice, video and data. There are few pockets in the country where distribution is through digital technology. If encryption and conditional access is added to digital transmission, then it also takes care of the actual subscriber base being served by the cable operator.

- 2.6 DTH has its distinct advantage to offer digital delivery of TV channels to the customer directly. However operation of DTH in Ku band suffer from the signal attenuation in rainy season.
- 2.7 Delivery of digital TV channels to the subscriber requires mainly the following digital infrastructure:
- Digital Headend
 - A distribution network capable of digital transmission.
 - Set-top Box (in case of encrypted mode of delivery)/digital decoder (in case of digital mode of delivery) at the customer's end.
- 2.8 The digital delivery of the TV signals to the subscriber requires upgradation of the network and consequently additional investment by the MSO and the cable TV operator. The extent of such upgradation would depend upon the existing status of the network and intended level of services to be offered.
- 2.9 The subscriber will have the freedom to choose the pay channels he wishes to watch with the introduction of Conditional Access System (CAS) in cable transmission. However, the subscriber will have to invest in the set top box to view the chosen pay channel. The CAS system envisages authentication by the MSO of every subscriber's choice of pay channel. There is verifiable number of subscribers. MSOs/LCOs in delivery value chain are required to make payments on the basis of number of actual subscribers recorded in the system. Since the MSOs in CAS notified area opted for the digital system for rolling out CAS, the picture quality of channels has improved drastically at the consumer end.

- 2.10 In case of Direct-to-Home (DTH) service, subscribers are getting the TV signals directly from the DTH operator through satellite without any intermediary. Since DTH operation is in Ku band, the subscriber can receive the signal with the help of a small parabolic dish antenna at his/her premises. As per DTH license, all the channels carried by the DTH operator must necessarily pass through the encryption process. The addressability feature, thus, is inherently embedded in DTH service. Even Free-to-Air channels will have to be sent in an encrypted mode and will require a set top box for viewing.
- 2.11 The MSOs in the Conditional Access System (CAS) notified area of Delhi, Mumbai, Kolkata and Chennai have already put their digital headends for delivery of the pay channels to the subscribers. Apart from mandatory delivery of minimum 30 Free to Air channels in analog mode to the subscribers, MSOs are offering some Free to Air channels through digital transmission along with pay channels. Apart from the CAS notified area in the country, there have been attempts at digital transmission of Cable TV in some other parts of the country as well. The realization on the part of service providers about the need to move towards digitalization at a much faster pace is perceptible particularly after the push by the competing DTH platform for an increased presence.

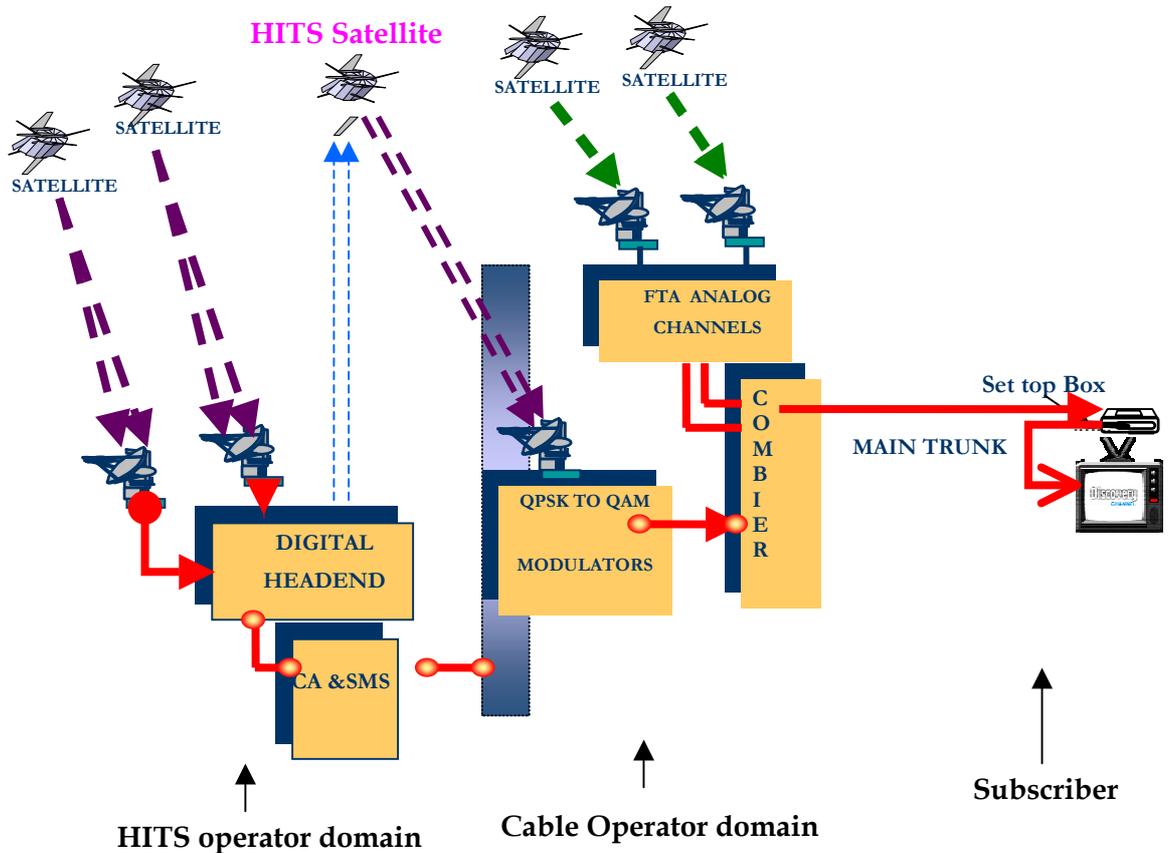
Headend-In-The-Sky (HITS)

- 2.12 In order to understand the HITS operation, it would be useful to briefly recall how the conventional cable distribution system works. In the conventional system, the MSO sets up a headend on the ground as described in para 2.2 earlier. Using this head-end, he downlinks the channels of various broadcasters from different satellites. Since each broadcaster uses a different and unique encryption for his channels (particularly pay channels), the equipments at the head end decode/un-encrypt the downlinked channels of each broadcaster. After this, all the unencrypted channels, both pay and FTA, are formed into a bundle and transmitted by MSO through fibre cable to last mile cable operators, who in turn re-transmits them through co-axial cables to individual subscribers. A variation to this system takes place in CAS areas, where the MSO re-encrypts the pay channel segment of his bundle before transmitting the bundle (consisting of encrypted pay channels and unencrypted FTA channels) to the last-mile cable operators. When these are re-

transmitted as such by the cable operator to the subscriber, the subscriber needs a set top box to un-encrypt the pay channels for viewing.

- 2.13 Functionally, a typical HITS operator performs like a MSO. In the HITS, the operator downlinks the channels of various broadcasters at his earth station, unencrypts the channels wherever necessary and forms a bundle. Thereafter, the HITS operator re-encrypts the pay channel segment of his bundle and then uplinks the entire bundle to his HITS satellite in the sky. The HITS satellite then beams down the bundle of channels with a footprint spreading across the whole country. Thus the cable operators all over the country can downlink this bundle of channels using a single dish and a few trans modulators. There after, the channels are re-transmitted by the cable operators in the conventional way to the subscribers, who use a set top box to un-encrypt the pay channels, as in the case of CAS areas. The subscriber management system (SMS) and the quality of service (QoS) remain the responsibility of the HITS operator. Thus the essential difference between a HITS operator and the terrestrial operation of a MSO is that the former transmits the bundle of channels to the cable operators using a satellite, whereas the latter does the same through cable. Because of this as mentioned already, the HITS operator's area of coverage spans the whole country, whereas the MSOs area of coverage is confined to a limited geographical areas (typically a town/city) close to his headend.
- 2.14 There are two variations possible in the HITS operations outlined above. The first such variation is one where a cable operator downlinks only the encrypted pay channels with or without FTA channels from the HITS satellite. For FTA channels, the cable operator also has the option to set up his own terrestrial headend, and then merges the HITS pay channels with his own FTA channels to form a bundle of channels which is then re-transmitted to the subscriber. This business model is already existing in the conventional analogue cable operations where a cable operator takes pay channels with or without FTA channels from a MSO. If he does not want FTA from the MSO, then he may setup his own headend for FTA channels. Thus, in this model, the HITS operator provides not only the satellite facilities, but also the content. In this model, the HITS operator works like a typical MSO.

Figure 2 : A typical HITS system Architecture



2.15 In the second model, the HITS operator does not get into content aggregation. In this scenario, the HITS operator simply becomes the provider of passive infrastructure, i.e., the HITS satellite. MSOs undertake the business of content aggregation in the conventional sense. Then each MSO encrypts his bundle of channels with a unique and different encryption system, which are then uplinked to HITS satellite of the HITS operator. Thereafter, each bundle of the MSO is beamed down throughout the country. In this case, the cable operators get a choice of MSOs.

Shortcomings in establishing different terrestrial headends for digital delivery with Conditional Access System (CAS)

2.16 Under the conventional distribution system, digital headend including CAS and SMS will be quite expensive involving investment by each and every MSO who seeks to provide TV channels in digital mode with encryption and SMS. The MSOs may opt for low end encryption system to avoid high costs, which would be a compromise on piracy of signal and security aspect of the system. This may defeat the very purpose of the introduction of digital delivery with Conditional Access system.

2.17 There are different types of conditional access (CA) system varying from low end to high end capability to deal with the piracy and security aspect. Each MSO will opt for a system depending upon his financial and other marketing considerations leading to a multiplicity of CA systems. Since a set top box has to be matched to a particular CA system, this may result in high price of set-top boxes to the subscriber due to absence of the economies of scale. This in turn will result in entry barrier for the subscriber and cable operators to adopt the conditional access digital delivery system.

2.18 It is difficult to monitor individual CAS installation and SMS systems across the country not only by the broadcasters but also by the Government Agencies to collect the applicable taxes on the cable services.

Strength of HITS over the existing mode of distribution from several headends through the Cable network

2.19 Implementation of digital delivery through HITS with conditional access system provides benefits not only to the cable operators but to all the stake holders involved. The biggest gain will be to the cable distribution system as a whole, which will get digitalised at a much lesser cost, as can be seen from below:

(i) **Cost of digitalisation through conventional cable system for the entire country:** This would essentially require converting the existing 7000 analogue head-ends into digital head-ends. The cost of a digital head-end including CAS and SMS ranges from Rs 2 crore to Rs 8 crore or more depending upon number of channels and sophistication of CAS and SMS. Thus, even at the lowest cost, the total amount required for 7000 digital head-ends would be upwards of Rs 15,000 crores.

(ii) **Cost of digitalisation through HITS for the entire country:**

(a) Earth station of HITS operator : Rs 15 crore

(b) Transmodulators by cable operators : Rs 1200 crore

@ Rs 2 lakh per operator for 60,000 operators

Total capex : Rs 1215 crore

- (c) Cost of hiring 10 transponders : **Rs 50 crore per annum**
for HITS satellite @ Rs 5 crore per annum **recurring.**
per transponder.

Thus, HITS could, theoretically, digitalise the cable transmission in the whole country with a capex of Rs 1215 crore and a recurring cost of Rs 50 crore per annum, as against the capex of more than Rs 15,000 crore for conventional terrestrial digitalisation. These cost comparisons do not include the cost of upgrading the last mile cable network and the cost of set top boxes, because these are common to both HITS and conventional digitalisation.

2.20 Gain to subscriber:

- 2.20.1 The biggest advantage to the subscribers is that high quality digital transmission with value added services will become available to the subscribers throughout the country at one go.
- 2.20.2 Since the reach of HITS service operator increases manifold, the cost of set-top box will be reduced due to economy of scale.
- 2.20.3 The subscriber will not have to change the set top box if he shifts anywhere else within the country, so long as the cable operator in the new locality is affiliated to the HITS operator.
- 2.20.4 The viewers will continue to watch the free to air channels in analog mode bypassing the Set top box or even without a set top box if they do not want to subscribe to the pay channels.
- 2.20.5 The digital transmission will enable operators to show many more channels to the consumers thus offering him a wide variety of choices.
- 2.20.6 The implementation of CAS through HITS will bring down the cost of distribution etc. which may lead to a consequent reduction in subscription rates.

2.21 Benefits to Cable Operators

- 2.21.1 The cable operator will get access to digital quality transmission throughout the country, which will help them in competing with other forms of digital delivery such as DTH and IPTV.
- 2.21.2 The cable operator will have the flexibility to take feed from MSO giving feed through terrestrial mode or from the HITS operator. If there are more than one MSOs using the passive HITS platform for transmission, then the cable operator's choice of MSOs increases even more.
- 2.21.3 In stand alone CAS implementation, Operator will have to invest on the SMS. In HITS model he will not be required to have an independent SMS of his own.
- 2.21.4 With growing number of channels, Cable Operator will have to upgrade his network capacity from present 550 Mhz to 850 Mhz in conventional analogue mode. In HITS model he will be saved of this capital expenditure because by having digital transmission, he can carry more channels in existing network.
- 2.21.5 The disputes among cable operators, MSOs and broadcasters mainly related to number of subscribers will be minimal because of addressability in HITS.

2.22 Benefits to the Government :

- 2.22.1 With the implementation of digitalization through HITS, the incidence of under-declaration of the subscribers by the cable operator will be reduced and, therefore, the substantial loss that is caused to the Government by way of evasion of taxes will be prevented.
- 2.22.2 The implementation of CAS through HITS will ensure a centralised mechanism of distribution of signals of various pay channels which will in turn make the monitoring/regulation of the industry by the Government much more convenient and effective.
- 2.22.3 The task of policy and of planning for this sector will be easier as all the information regarding the number of subscribers, their opted service, the

payments made for such subscribed services etc. would be available at single centralized location, as opposed to the digital implementation through thousand of individual head ends wherein such information would be scattered and would be difficult to monitor.

2.23 Disadvantage of HITS

2.23.1 If HITS indeed becomes the country-wide choice of all cable operators, and if the number of HITS operators is very low (say, one or two), then its market dominance may sometimes prove to be disruptive for other stakeholders.

2.23.2 Because of its country-wide footprints and the possibility of a very large subscriber base, any problems faced by the HITS operator due to disputes, legal cases, natural calamities, backing of its security/encryption system etc will have massive impact affecting millions of consumers at one go.

2.24 However, on the balance, it cannot be denied that HITS operation will certainly lead to better and more economical digital services to the public, thus ensuring assured revenue based on the actual no of subscribers availing their services, in addition to centralised data of subscribers for effectively realising taxes by the Government through HITS.

2.25 It however needs to be stated that even the other existing digital addressable systems (DTH, CAS cable) have many of these advantages, but what is relevant is there are certain areas where HITS has a distinct advantage. More importantly, the value of HITS as an alternative or additional platform for delivery having a potential to increase the competition cannot be over emphasis.

Chapter 3. Current Scenario

Indian Scenerio

3.1 In 2003, Government of India gave permission to M/s ASC Enterprises (At Annexure B) for operating HITS service for implementation of CAS on their existing teleport license in C-band. The special terms and conditions of permission for operating HITS are as under:

- Direct or indirect foreign share holding in the applicant company will be less than 49%.
- Terms and conditions of the licence agreement for setting up of a teleport for uplinking of TV channels permitted by the Ministry of I&B will be applicable.
- Uplinking for turnaround will be permitted in C band only, and such uplinking will be permitted only on Indian Satellite.
- Downlink Effective Isotropic Radiated Power (EIRP) will be less than 33dbW.
- HITS operator will be permitted to uplink all channels, which are normally available in India over the cable and for which he seeks to obtain permission for turnaround.
- HITS operator will have arrangements with the channel owners clearly laying down terms and conditions permitting turnaround of these channels.
- HITS operator shall not carry any channel prohibited by the Ministry of I&B.
- HITS operator will ensure that the Cable Operator through whom channels are distributed make available FTA channels without Set Top Box (STB). In case HITS operator does not find it feasible, STB free of cost to the subscriber will have to be provided.

- HITS operator will ensure that signals are distributed in an equitable and non-discriminatory manner. No independent operator will be refused decoder if he does not want to join HITS.

3.2 However this service could not take off, ostensibly because there were problems of availability of content, and more importantly because of the slow progress of addressability. The difficulty in getting content had also led to litigation. It is reported that many broadcasters of popular channels had refused to join the HITS platform. M/s ASC Enterprises had filed a complaint regarding denial of signals by these broadcasters in the Monopolistic and Restrictive Trade Practices (MRTP) Commission. MRTP Commission had passed an interim order directing these broadcasters to provide their signals to the complainants. However, the interim order was challenged in the Supreme Court and the court remanded the matter to MRTP Commission directing it to pass a reasoned order after hearing both the parties. The case is pending in the MRTP Commission.

International experience

3.3 HITS service is successfully functioning internationally in Pay TV market. The pay channels available on such HITS service from many broadcasters provide rich content to TV homes.

USA

3.4 The Federal Communication Commission (FCC) had taken note of the HITS technologies, which claimed to reach 7.2 million subscribers in 2002. AT&T and WSNNet have been operating a HITS service.

3.5 The American Cable Association (ACA) comprising of over 930 independent cable companies had filed before the FCC the following:

3.5.1 Stability of HITS ownership brings important public interest benefits to smaller market cable systems and the consumers they serve.

3.5.2 AT&T's HITS is by far the dominant digital cable distributor for cable operators in smaller market. Through digital compression technology and solutions specifically designed for smaller headends, HITS has enabled an

increasing number of smaller systems to substantially expand service offerings.

- 3.6 In 1998, Time Warner started its own HITS service called Athena. This service was based on Scientific Atlanta PowerVu encryption and Explorer 2000 set-Top-Boxes on Telestar 5 satellite.

Japan

- 3.7 At present two HITS platforms are operational in Japan in Ku Band.

Chapter 4. Issues for Policy Framework

Policy framework for HITS

- 4.1 Before discussing the policy issues, it would be useful to discuss whether the existing framework relating to broadcasters and cable TV sector is adequate to promote HITS operations, and if they were, then why HITS has not taken off on its own. These and other issues have been examined below.
- 4.2 At present, there are two policy frameworks, one relating to DTH and another relating to uplinking guidelines. DTH cannot be used for transmitting signals to cable operators because DTH is meant for direct transmission to subscribers. Moreover, the business model of DTH is such that there is no sharing of revenue by the DTH operators with any intermediary. Uplinking guidelines are meant for broadcasters to uplink their individual channels. Thus, the existing framework is not adequate to roll out HITS operations.
- 4.3 As to why HITS has not taken off when it is viable, there are a couple of important reasons. Firstly, the uplinking/downlinking guidelines of broadcasters stipulate that the broadcasters will supply their signals only to DTH operators or to MSOs. As a result, HITS could not acquire content. Even if the uplinking/downlinking guidelines were to be modified to permit supply of signals to any distributor of TV channels, there existed a possibility of market resistance from some quarters. The second reason for lukewarm response to HITS was that it is an addressable platform, whereas the market operations of most of the service providers (broadcasters, MSOs and cable operators) are presently built around negotiated subscriber base with its attendant controversy of actual number of subscribers. The movement from negotiated subscriber base to a transparent addressable system may result in loss of revenue in the short term for a section of service providers. This inability to take a revenue hit in the short term has also contributed to lack of enthusiasm in starting HITS operation. Thirdly, in the absence of a legal framework of HITS, there was no legal framework and it lead to a fragile relationship amongst the stakeholders. Fourthly, the spectrum management was not defined.
- 4.4 However HITS as an alternate mode of transmission is undisputed. Firstly, in a very large but fragmented market with 60,000 cable operators serving 70 million cable

homes, there is no quicker means to digitalize the cable operations. Even DTH, with its country-wide foot prints, may not achieve this objective because the poorer sections among the cable subscribers are unlikely to move to DTH. The second benefit is that HITS with its addressability will mean that consumers will have an effective choice for channel viewing. Thirdly, HITS as an alternate platform of delivery will result in an increased competition with other delivery platforms such as DTH, conventional terrestrial MSO, IPTV etc. An enhanced level of competition will benefit the consumers and the sector as a whole.

Key Issues in HITS policy guidelines and License Conditions:

I. Scope of HITS operation

- 4.5 There can by and large be two models in which services through the HITS platform can be provided as already mentioned in Chapter 2. In one model, the HITS operator contracts with different broadcasters for buying content, aggregates the same at an earth station and then uplinks with his own encryption to a satellite hired by him in the sky. The uplinked channels are then permitted to be downlinked by the cable operators using a large dish antenna for onward distribution through last mile cable network to the TV homes. In this model, the HITS operator works like a conventional MSO.
- 4.6 In the second model, the HITS operator merely provides infrastructure facilities 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.
- 4.7 The infrastructure facilities would normally consist of transponder space on satellite, earth station facilities and the provision for simulcrypt/multicrypting of channels aggregated by different MSOs with different encryption systems. HITS operator in this second model does not contract with the broadcaster for content. He only enters into the contracts with one or more MSOs or consortium of cable operators desirous to uplink their aggregated channels from HITS earth station(s) to the HITS satellite. In this model the HITS operator acts as a facilitator by providing facility of a satellite for the aggregated content to be uplinked and subsequently downlinked by the cable operators.

- 4.8 The issue for consideration in the above context is whether the definition of the term HITS Operator would need to cover HITS operation under both the models and only one of the two models. This is considered relevant because the framework for license or the guidelines for HITS may require certain clauses relating to a particular type of HITS operator to be modified to suit the HITS operation under the other model.
- 4.9 For a MSO or a cable operator desirous of expanding its operation, HITS has distinct advantages of the pan Indian reach in digital mode without having the need to set up separate head ends at different places. Further given the fact that the cable sector is fragmented with 7000 MSOs, the possibilities of emergence of HITS operation under a second model cannot be ruled out.
- 4.10 It is also to be noted that under both the models, the function of uplinking the aggregated content to a satellite is part of HITS operation. The only difference is that the HITS operator in the second model has no contractual relation with the broadcasters nor with the subscribers.

II. Frequency band for HITS transmission

- 4.11 The existing Interconnection Regulations, 2004, issued by TRAI define HITS operator as one who uses C band for transmitting channels. The existing DTH license condition requires that the uplinking and downlinking of TV channels will be done in Ku Band. On the other hand, one of the special terms and conditions of the permission given to M/s ASC Enterprises as the HITS operator requires uplinking of TV channels in C- Band. The HITS permission also requires that the downlink EIRP should be less than 33 dbW. The intention behind these special conditions in case of permission to HITS operator is to keep the two platforms of DTH and HITS distinct and separate to increase competition. The target customer in the case of HITS is the cable operator and in the case of DTH is the individual households. Thus a household consumer would have a choice to subscribe either to DTH or to cable through HITS. A larger dish would be required to receive the transmission done in C- Band which an individual subscriber may not afford. On the other hand, transmission in Ku Band can be received with a small dish which an individual subscriber can afford. But for the condition in the license /permission, there are no technical limitations for the HITS services to be provided in Ku Band or the DTH services in C-Band. The restriction on downlinking power alongwith the requirement

of operation in C Band in the case of HITS is essentially meant to create a firewall between HITS and DTH operation. The issue therefore for consultation is whether the HITS operation should be permitted in both C Band and Ku Band, or only in one of the two bands.

- 4.12 There can be arguments on both sides. The existing dispensation of separate bands for DTH and HITS can be supported on the ground that doing otherwise and allowing HITS in Ku Band would obliterate the distinction between HITS and DTH platforms. Moreover, HITS is to be allowed the freedom to choose the type of band, then there could be similar demand from the DTH operators also. This would defeat the purpose of increasing the competition by increasing the number of different type of delivery platforms (i.e., conventional cable, HITS, DTH, IPTV etc.).
- 4.13 On the other hand the argument for doing away with the distinction of bands between DTH and HITS could be that there is nothing wrong about putting in place an enabling mechanism which allows the operator to choose the technology – C band or Ku band he wants to adopt and decide the target group of consumers (through cable operators or directly to end consumers). The rationale is that the decision on C-Band or Ku Band or whether directly to end consumers or through the cable operators would ultimately be guided by commercial considerations. In this background the compartmentalization would only be artificial. Another argument in support of allowing HITS operator to access the consumer directly is that when a land based MSO is free to serve the end consumers directly (through direct points) without going through the cable operator, there is no case for denying to HITS operator.
- 4.14 **The issue for consultation is whether the HITS operation be allowed both in “Ku band” and “C band” or only in ‘C band’. If both bands are to be allowed, then whether the existing restriction on DTH for transmission under Ku band should also be reviewed.**

III. FDI Limit

- 4.15 As per the existing policy, the upper limit for foreign investment in DTH, cable and uplinking permission is 49%. In the case of DTH, there is additional inter se restriction of 20% on foreign direct investment. On the other hand, the FDI limit in

telecom sector has been increased to 74%. In the era of convergence where the distinction between voice, internet and video is vanishing, having different FDI limits for different carriage medium is anomalous. It is against this background that the Authority had stated in its recommendation on “Issues relating to Broadcasting and Distribution of TV channels” dated 01.10.2004 to the Government that there should be consistency in policy and level playing field between competing technologies and therefore had recommended that there is need for a complete review of the FDI policy so that it is consistent across all sectors and that this would ensure that policies are not a stumbling block where there is a natural convergence of technologies. This recommendation was reiterated in the subsequent recommendations on “ Digitalisation of Cable Television” dated 14.09.2005 and on “ Issue relating to Convergence and Competitions in Broadcasting and Telecommunications dated 20.03.2006.

- 4.16 HITS essentially is a platform for delivery of TV channels in digital addressable form. Unlike DTH, HITS has to rely on the vast cable network structure at the last mile level for transmission of signals to the consumer homes. Digitalisation and addressability are the two essential ingredients for HITS to succeed.
- 4.17 HITS would require investment in hiring of satellite space and transponders and setting up of earth stations. The platform has to rely on the extensive cable network for reaching the consumer homes. Further the transmission in addressable form would require huge investment in set top boxes (though recoverable). Finally, HITS will require substantial funds for acquiring content and distributing the same.
- 4.18 The recent market research reports suggest that the entertainment and media sector, particularly the television media in the country is poised to grow very rapidly and the foreign investors are looking at a facilitating and conducive environment to exploit the opportunities. A cap of 49% for both direct and indirect holding has a tendency to put off the investors as the investment would not be backed by effective control over operations. The proponents of higher FDI limit feel that it will lead to greater competition, which will benefit the consumers.
- 4.19 On the other hand, an argument often advanced against increasing the level of FDI cap is that even at the lower cap of 49% there is lack of interest on the part of foreign

investors. This lack of interest, it is argued, is due to the present state of the cable TV industry characterized by lack of transparency and haphazard growth and fragmentation. The mere increase in the FDI cap is unlikely to attract investment unless the basic issues of the industry are addressed. Further, a move towards increase in FDI cap for HITS would raise demands for increase of FDI cap in DTH as well. These arguments apart, it has often been voiced by policy makers that the media sector is a sensitive sector and foreign control over the same is not desirable. Therefore the argument of increasing the cap for making it attractive to facilitate control over management is not very relevant.

- 4.20 Thus from the above it could be seen that on the one hand, there is a requirement of huge investment as well as need to promote competition suggesting that existing cap would need to be increased from 49% to facilitate flow of funds. On the other hand, there are arguments for not disturbing the existing cap of 49%. **The issue for consultation, therefore, is what should the FDI limits for HITS platform be.**

IV. Entry fee and annual fee

- 4.21 The one time non-refundable entry fee in case of DTH license is Rs. 10 Crores. The permission to operate HITS services given to M/s. ASC Enterprises does not prescribe any entry fee. The MSOs and cable operators are also not required to pay any entry fee. In terms of the ultimate objective, both DTH and HITS platform carry and distribute broadcast television signals by first uplinking from an earth station to a satellite in the sky for downlinking later. The justification behind entry fee is to ensure that non-serious players are kept out. If the argument of level playing field is to be advanced, the requirement of one time non refundable entry fee for HITS operation at the same level as that of DTH can be supported. This may appear to be justified because both DTH and HITS are countrywide operations, and interests of consumers would be best served if non-serious players were kept out.
- 4.22 On the other hand, it can be argued that a HITS operator should be treated at par with a land based multi system operator providing digital broadcast signals in addressable form. A multi system operator is required to pay only an annual registration fee of Rs.500/-. The argument is that HITS operator is not different from a multi system operator except that the former has a head end in the sky instead of on the earth. Even more importantly, both the MSOs and HITS operator have the

same business model under which they have to share their revenues with another intermediary, namely, last mile cable operator. From this point of view it would appear that no entry fee should be charged from HITS operator, as in the case of MSO. The proponents of this view further state that large size of HITS operations should not become a criterion for imposing of entry fee, because there are some MSOs with several million cable connections who do not have to pay any entry fee, other than the annual registration fee of Rs. 500/-.

4.23 The issue for consultation is whether the entry fee requirement of Rs. 10 crores for a DTH operator be extended to the HITS operator as well, or whether some lower amount or no amount at all should be charged.

4.24 Further, in the DTH license, there is a provision for payment of annual license fee equivalent to 10% of its gross annual revenue. On the other hand, the permission given to M/s ASC Enterprises to operate HITS services does not contain any stipulation for payment of annual license fee. The MSOs and cable operators also do not pay any annual fee or revenue sharing basis. The arguments advanced both for and against, in respect of the issue of one-time entry fee are generally relevant in the case of the issue of annual license fee. However, there is one important difference. The revenue model for HITS operator is the same as that of an MSO, and both have to share the revenue with cable operators. This is not the case with DTH, where there is no revenue sharing with any intermediary between the DTH operator and the consumer. Thus if HITS is treated at par with DTH for imposition of annual fee as a percentage of revenue, then to that extent, there is a possibility that HITS will be handicapped in competing with terrestrial MSOs who do not have to pay any revenue share.

4.25 The issue for consultation is whether the entry fee requirement of Rs. 10 crores as in case of DTH operator be extended to the HITS operator as well or whether the HITS operator should be treated at par with MSOs and cable operators.

V. Restriction on uplinking

4.26 Clause 13.1 and clause 7.5 of the licensing conditions of DTH indicate that the uplinking has to be done from an earth station situated in India and all the content has to pass through the conditional access system and subscriber management

system located in India. The location of the uplinking earth station in India has its advantage in terms of easier and effective monitoring by the licensor and would also be preferable from the security aspect.

- 4.27 On the other hand it can be argued that the existing downlinking guidelines permit channels to be uplinked from earth stations situated abroad, and the control over such uplinked channels is exercised by necessitating permission cum registration under the down linking guidelines. These downlinking guidelines also provide for a mechanism to facilitate monitoring. Further permission for uplinking from earth stations located outside the country would facilitate competition and provide flexibility and ease of entry for new entrants. This becomes particularly relevant from two angles. Firstly, there is perceived shortage of transponders on Indian satellites, which is felt more acutely in Ku band than C band. Secondly, it is felt that it is the content that requires monitoring, and not the carrier of that content. As it is, there is content regulation in place by Ministry of Information and Broadcasting. Hence the need for uplinking from India for monitoring HITS as a carrier appears less than justified, when uplinking content from outside is permitted.
- 4.28 The concerns regarding difficulties in effective and easier monitoring could possibly be addressed by providing for a suitable prescriptions in the licensing conditions /guidelines on the lines of downlinking policy guidelines. A question could therefore arise as to what should the safeguards be that would need to be provided in case the HITS operator is allowed to uplink from an earth station located outside the country.
- 4.29 A related issue is whether permission to an operator to uplink from outside India has the potential to put an operator uplinking from India at a regulatory disadvantage. This concern essentially flows from the possibility of difference between India and abroad on regulatory restrictions and other financial burden in the form of spectrum fee or other charges. But the concerns could be addressed by providing for appropriate checks and balances. **The question therefore is that if the HITS operator is allowed to uplink from outside India, then what are the kind of checks and balances that would need to put in place to address the concerns of a HITS operator who is uplinking from India.**

VI. Spectrum Fee

- 4.30 In the recommendation dated 29.04.2004 on 'Accelerating Growth of Internet and Broadband Penetration', the Authority recommended that DTH operator should be exempted from spectrum royalty fee for uplinking from within India. However this recommendation has not been given effect to so far by the Government.
- 4.31 The same logic may be applied for the HITS operation to exempt spectrum fee for uplinking from within India.

VII. Interconnect Agreement between Content Provider And HITS operator

- 4.32 The question that is being discussed in subsequent paragraphs is whether there is any issue of interconnection that needs to be addressed in the context of policy guidelines and licensing framework for HITS operation. Secondly, whether interconnection issues, if any, can be handled by providing appropriate changes in existing regulatory framework instead of addressing in the policy guidelines and licensing framework. It may be more appropriate if the changes that may be required in the regulatory framework are merely flagged. The interconnection issues in the broadcasting and cable TV sector are primarily governed by the regulation notified by TRAI on 10.12.2004, as amended from time to time. Clause 3 of the principal regulation requires provision of content on non-discriminatory basis at all levels of distribution chain and across platforms. This regulation defines HITS operator as any person permitted by the Central Government to distribute multi channel TV programmes in C band by using a satellite system to the intermediaries like cable operators and not directly to subscribers. Further, HITS operator is also to be treated as distributor of TV channels.
- 4.33 Thus existing dispensation in clause 3 of the principal regulation providing for non discriminatory access to content should come into operation in the same way between a broadcaster and HITS operator or HITS operator and cable operator as it would operate between broadcaster and MSO and between MSO and Cable operator.
- 4.34 However certain terms and conditions of the standard interconnection agreement notified with reference to CAS notified areas in its existing form (as it caters to the land based distribution mechanism) may require changes to suit the requirement of

operation of the HITS platform. In the other variant form where HITS operator does not contract with the broadcaster for content there may be a need for some prescription to prevent the HITS operation from being grounded on account of non-provision of signals by the broadcasters to the multi system operators who desire to reach across the country through an HITS operator providing infrastructure facility. Another interconnection issue could be a model for revenue sharing on the lines done for CAS notified areas in respect of distribution of TV channels through HITS operator. This has been addressed in the subsequent heading.

- 4.35 The existing licensing framework for DTH do not contain any stipulations relating to interconnect issues raised above. The policy guidelines and policy framework need to recognize the issues for changes in regulatory framework and the changed regulatory prescriptions need not form part of licensing conditions. **The issue therefore for consultation is whether there are any other issues relating to interconnection.**

VIII. Revenue Share

- 4.36 It is possible for HITS operator to send signals in non-CAS area in addressable mode. In this context, **an issue arises as to whether the existing revenue share model made applicable to CAS area should be extended to this platform also.**
- 4.37 There is a possibility of a MSO availing service of a HITS operator, in this situation a **relevant issue that would need to be consider is whether the inter se share between the MSO and the HITS operator be determined or be left for mutual negotiations.**

IX. Offering of Value Added Services

- 4.38 Since HITS provides only the forward path of transmission of TV channels, it would not be possible to provide value added service by the HITS operator using only its network. In this scenario, the operation of HITS is similar to the DTH operation. However, they could use the telecom network for any reverse path communication requirement to offer value added services like Video on demand etc.
- 4.39 The MSO in the conventional delivery mode through the cable at present could provide the bi-directional service by using their own network but by reaching cable operators through HITS service the offering of these type of services will be difficult.

- 4.40 From above discussion it emerges that apart from the delivery process technology, there are basically two differences between HITS and the MSO. A) HITS operator can not extend the value added service to the consumer directly in cost effective manner B) Inability to offer bi-directional value added service independently on its network.
- 4.41 As per clause 10.1 of the DTH license condition, the DTH facility shall not be used for other mode of communication, including voice, fax, data, communication, internet, etc. unless specific license for value-added services has been obtained from the competent authority. Apart the above specified value added services there can be number of other services such as video on demand, provision of EPG etc. Thus in the DTH license there are no restrictions on providing these value added services.
- 4.42 A similar condition on the lines of clause 10.1 of DTH license has also been provided in the existing teleport licence permitting HITS operation by M/s ASC Enterprises. But the teleport license additionally provides that Teleport shall be used for uplinking TV channels **only**. It would therefore seem that unlike a DTH license, a number of other value added services like video on demand, EPG etc cannot be provided through HITS. In the context of the above **a question arises as to whether the position similar to the DTH license should be made applicable to the HITS operator as well or whether the existing formulation in the teleport license be retained as it is.**

X. Must Carry/Must provide Provisions

- 4.43 As per clause 7.6 of the DTH license agreement, the DTH licensee shall provide access to various content providers/channels on a non-discriminatory basis. The insistence by Zee group to carry all their channels on TATA Sky's DTH platform on the strength of clause 7.6, led to a judicial scrutiny and interpretation of clause 7.6 by Hon'ble TDSAT. The Hon'ble Tribunal had observed as under:

" We are unable to read a 'must carry' provision in clause 7.6. A plain reading of clause 7.6 suggests that the obligation is cast on a Licensee to provide access to various content providers/channels on a non-discriminatory basis. As per this clause, therefore, the Licensee is not the seeker of channels. The broadcasters or the content providers have to approach the Licensee for providing access on its platform for their channels and then the Licensee is required to do so on a non-discriminatory basis.

This clause also does not say that a Licensee must carry all the channels of a particular content provider. Therefore, we are unable to see how an argument that a Licensee must carry all the channels of a broadcaster can be, advanced on the basis of the provision contained in clause 7.6 of the Licence. Further, it must be noted that the interpretation suggested by the learned counsel for the respondent in clause 7.6 of the Licence is totally irrational because it overlooks the fact that it will choke the DTH operator if it has to carry all the channels of every broadcaster. A DTH operator naturally will provide access to every broadcaster because every broadcaster is supposed to have some popular channels which a DTH operator is likely to include on its platform. If a DTH operator has to take all the channels of every broadcaster, it may not be physically possible to do so. Moreover, if every channel has to be taken it means that it will have to be paid for. This will increase the cost for the DTH operator. Ultimately, the cost will get passed on to the consumer. “

- 4.44 Thus the Hon'ble TDSAT had viewed that existing clause 7.6 in the DTH license cannot be interpreted to contain a “must carry” provision requiring a DTH operator to carry all the channels provided by a broadcaster.
- 4.45 The capacity shortage in Ku band had given rise to the question whether the DTH operator be forced to carry all the channels. The logic is that if there are technical constraints in carrying all the channels, it may be necessary that the regulatory framework in place also recognizes that constraint. In view of the observations of Hon'ble TDSAT on the interpretation of clause 7.6 of DTH licensing condition, no regulatory compulsion to carry all channels can be read into clause 7.6. In this sense the existing regulatory framework in the form laid out in clause 7.6 can be deemed to pose no difficulty for a DTH operator to refuse carrying all the channels provided by the broadcaster.
- 4.46 However, there is another school of thought which feels that if clause 7.6 of DTH license is not to be interpreted as “must carry”, then the clause itself becomes superfluous, because no other valid interpretation can be ascribed to it. The clause no longer remains necessary. **The issue for consultation is, therefore, whether a similar condition as that of clause 7.6 of DTH license condition be provided in the HITS licensing conditions.**

XI. Networth of a company

- 4.47 Given the fact that HITS possesses the potential of a very wide footprint and requires a very high level of investment, it is necessary that only serious players enter the field and such entrants are financially sound to make investments and sustain the operations till the business breaks even. The size of networth can be one of the parameters which is expected to give an indication of the seriousness of the entrant and the financial capabilities. A stipulation in the policy guidelines prescribing a level of networth as an eligibility criterion will help keep away the non-serious and financially unsound entrants.
- 4.48 On the other hand, in the case of DTH guidelines there is no eligibility conditions requiring a minimum networth for the applicant for license though what is stated as a general principle is applicable to that platform as well. Even in the absence of any such criterion the entrants who have come in the DTH platform cannot be considered non serious one or financially not sound.
- 4.49 Another argument against the need for such stipulation could be that when an applicant agrees to fulfil the obligation on account of payment of license fee and performance bank guarantee, the stipulation on networth would be deemed superficial.
- 4.50 Hence the question is whether or not a stipulation regarding requirement of a networth of a specified amount be made as an eligibility requirement in the guidelines for HITS. In case such a stipulation is desirable what should the amount be that should be prescribed as minimum networth at the close of the immediately preceding financial year in which an application has been made.**

XII. Cross Holding Restrictions

- 4.51 The existing provisions under a DTH license provide as under -

“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 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.”

4.52 The main reason behind such restrictions is to ensure that content providers and content distributors should not become vertically integrated, which will be against the interest of fostering competition. Since cable network through HITS and DTH services are the competitive platforms for acquiring the customers, similar type of cross holding restriction could be appropriate in HITS license as on the line of DTH license. Otherwise, the HITS platform can be misused to provide a reach and an enabling tool for the broadcaster to set up its own HITS platform and thereby have a very wide vertically integrated control over distribution network. Therefore there are grounds for retaining restrictions as applicable to the DTH platform for the HITS operator as well. There can be one question as to whether such restrictions would be required in the case of an HITS operator who merely remains passive and provides only an infrastructure to one or more MSOs.

4.53 **From the foregoing, the following issues have emerged for consultation:**

4.53.1 What should be the scope of the HITS operations? Whether the scope of the HITS operator should include both the models as stated under heading “scope of HITS operation” in paras 4.5 and 4.6 ?

4.53.2 Whether HITS operations should be allowed in C-Band or in Ku band or in both?

4.53.3 Whether a HITS operator should be restricted to offer services only to the cable operator? Alternatively, should HITS operator be allowed to serve the

end customer also directly? If yes, then whether the restriction on DTH to service end customer only needs any review?

4.53.4 What should be the limit of Foreign Direct Investment (FDI) for HITS licenses? Should there be any restriction on the maximum limit on the composite figure of FDI and FII?

4.53.5 What should be the entry fee and the annual license fee for HITS?

4.53.6 Whether HITS operator should be allowed to uplink from outside India also?

4.53.7 If yes, what are the safeguards needed for monitoring the system? What are the checks and balances required to be put in place to address the level playing field issue with the operators uplinking from India?

4.53.8 Should any interconnection issues be addressed in licensing conditions?

4.53.9 Should spectrum charges be recommended to be done away with for HITS service provider?

4.53.10 Should there be any cross holding restriction? If yes, please suggest the nature and quantum of restrictions.

4.53.11 Should HITS operator be allowed to offer value added services?

4.53.12 Whether “must carry/must provide” conditions be imposed on HITS operation?

4.53.13 Whether a stipulated networth of specified amount be made as an eligibility criteria to avoid any non-serious applicant?

Annexure A: Letter from Ministry of Information and Broadcasting



ARVIND KUMAR
Director(BP&L)
Tele: 23381863.

Office of Advisor (B&CS)
Copy No. 1282-C
Date 16/5

भारत सरकार
GOVERNMENT OF INDIA
सूचना और प्रसारण मंत्रालय
MINISTRY OF
INFORMATION & BROADCASTING

नई दिल्ली-१, तारीख

Dated New Delhi-1, the

No.9/2/2005-BP&L

May 15, 2007.

Dear Shri R.N. Choubey,

Please refer to the recommendations dated September 14, 2005 on the issues relating to digitalization of Cable Television in the country and the group constituted to go into the question of digitalization and voluntary CAS.

2. Reference Para 5.8.4 of the said recommendations of TRAI, this Ministry desires that TRAI may also work out detailed policy framework required on HITS so as to facilitate this Ministry to take a view.

Regards

Yours sincerely,


(ARVIND KUMAR)

Shri R.N. Choubey
Adviser(B&CS)
Telecom Regulatory Authority of India
Mahanagar Door Sanchar Bhavan
Jawaharlal Nehru Marg, Old Minto Road,
NEW DELHI-110002.

Annexure B: Permission by Ministry of Information and Broadcasting for HITS operation

भारत सरकार
GOVERNMENT OF INDIA
सूचना और प्रसारण मंत्रालय
MINISTRY OF INFORMATION & BROADCASTING
ए' विंग शास्त्री भवन, नई दिल्ली - 110 001
'A' Wing Shastri Bhawan, New Delhi - 110 001

सं/No. 7

25.4.2003

No.1404/8(i)/2002-TV(I) तारीख _____
Date

To
Shri R.K. Mehrotra,
Vice President,
M/s. ASC Enterprises Ltd
907-914, 9th Floor,
18, Kanchenjunga Building,
Bara Khamba Road,
New Delhi - 110001

Subject : Application for uplinking of TV channels to implement CAS on ASC's teleport at NOIDA - M/s. ASC Enterprises Ltd.

Sir,
This is with reference to your letter No ASC/TPU/REG11/7/4/03 dated 5.4.2003 on the above-mentioned subject.

2. As per the conditions already conveyed in your licence to set up uplink hub and turnaround infrastructure vide letter of even number dated 2nd April, 2003, you are hereby permitted to turnaround the following ten (10) channels namely Alpha Bangla, Alpha Gujarathi, Alpha Marathi, Alpha Punjabi, Gemini TV, Teja, Zee Cinema, Zee News, Zee TV and DD Sports for HITS from your teleport at NOIDA on INSAT 3A.

3. This permission is subject to the understanding that you have necessary permission/arrangement with the channel owning companies to turnaround their channel on your teleport for HITS.

4. It is further reiterated that to turnaround any other channel from your teleport, these channels need to have specific permission of this Ministry for the same.

Thank you,

Yours faithfully,

(ANJANI KUMAR)
Deputy Director (INSAT)
Tele. 23384390

भारत सरकार
GOVERNMENT OF INDIA
सूचना और प्रसारण मंत्रालय
MINISTRY OF INFORMATION & BROADCASTING
'ए' विंग शास्त्री भवन, नई दिल्ली - 110 001
'A' Wing Shastri Bhawan, New Delhi - 110 001

सं/No.

No.1404/8(i)/2002-TV(I)

तारीख09.07.2003
Date

To

Shri R.K. Mehrotra,
Vice President,
M/s. ASC Enterprises Ltd.
907-914, 9th Floor,
18, Kanchenjunga Building,
Bara Khamba Road,
New Delhi - 110 001.

Subject : Application for uplinking of TV channels to implement CAS on ASC's teleport at NOIDA - M/s. ASC Enterprises Ltd.

Sir,

This is with reference to your letter No.ASC/TPU/REG11/7/4/03 dated 05.04.2003 and subsequent letters dated 24.04.03, 05.05.03, 20.05.03 and 19.06.03 on the above mentioned subject.

In partial modification to permission dated 25.04.2003 you are hereby permitted to uplink for turnaround (82) Eighty two channels as at annexure for HITS from your teleport at NOIDA on INSAT 3 A as per following conditions:

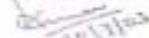
1. Direct or indirect foreign share holding in the applicant company shall remain less than 49% and shall continue to be so in future also, in accordance with the extant policy guidelines of the Government.
2. Terms and conditions of the licence agreement for setting up a of teleport for uplinking of TV channel(s) permitted by this Ministry shall be applicable.
3. Uplinking for turnaround will be permitted in 'C' Band
4. Uplinking for turnaround will be permitted only on Indian satellite.
5. Downlink ERP will be less than 33 dbW.
6. HITS operators will be permitted to uplink all channels which are normally available in India over the Cable and for which he seeks and obtains permission for turnaround.
7. HITS operators shall have agreements with the channel(s) owners clearly laying down terms and conditions permitting turnaround of these channels.
8. The HITS operator shall not carry any channel(s) prohibited by the Ministry of I&B
9. HITS operator shall ensure that the Cable Operator through whom channels are distributed makes available FTA Channels without Set Top Box (STB). In case HITS operator does not find this feasible, STB free of cost to the subscriber, will have to be provided.
10. HITS operator shall ensure that signals are distributed in an equitable and nondiscriminatory manner. No independent operator will be refused a decoder if he does not want to join HITS.

The company is required to keep this Ministry informed immediately about any change in the equity/share holding pattern or Board of Directors of the company.

The frequency clearance should be obtained by the applicant company from Wireless Planning and Coordination (WPC Wing)/Standing Advisory Committee on Frequency Assignment (SACFA).

Thank you,

Yours faithfully,



(LANJANI KUMAR)
Deputy Director (INSAT)

Annexure 1

- 6 Name & Number of the channels to be uplinked indicating the proposed date of commencement of uplinking from proposed Teleport

S.No	Name of the Channel	Language	Digital : Analog	FTA or Encrypted	Proposed Date of commencement of Uplink
1	Adventure One	English	Digital	Encrypted	May 2003
2	Alpha Bangla	Bangla	Digital	Encrypted	May 2003
3	Alpha Gujarathi	Gujrati	Digital	Encrypted	May 2003
4	Alpha Marathi	Marathi	Digital	Encrypted	May 2003
5	Alpha Punjabi	Punjabi	Digital	Encrypted	May 2003
6	Animal Planet	English	Digital	Encrypted	May 2003
7	AXN	English	Digital	Encrypted	May 2003
8	B4U Movie	Hindi	Digital	Encrypted	May 2003
9	Cartoon Network	English/India	Digital	Encrypted	May 2003
10	CNBC India	English/Hindi	Digital	Encrypted	May 2003
11	CNN	English	Digital	Encrypted	May 2003
12	DD Sports	Hindi	Digital	Encrypted	May 2003
13	Discovery	English/Hindi	Digital	Encrypted	May 2003
14	ESPN	Hindi	Digital	Encrypted	May 2003
15	Fashion TV	French	Digital	Encrypted	May 2003
16	Gemini TV	Telugu	Digital	Encrypted	May 2003
17	Hall Mark	English	Digital	Encrypted	May 2003
18	HBO	English	Digital	Encrypted	May 2003
19	National Geographic	English/Hindi	Digital	Encrypted	May 2003
20	Nickelodeon	English	Digital	Encrypted	May 2003
21	Set Max	Hindi	Digital	Encrypted	May 2003
22	Sony TV	Hindi	Digital	Encrypted	May 2003
23	Star Gold	Hindi	Digital	Encrypted	May 2003
24	Star Movie	English	Digital	Encrypted	May 2003
25	Star News	English/Hindi	Digital	Encrypted	May 2003
26	Star Plus	Hindi	Digital	Encrypted	May 2003
27	Star Sports	English	Digital	Encrypted	May 2003
28	Teja	Telugu	Digital	Encrypted	May 2003
29	Tensports	English/Hindi	Digital	Encrypted	May 2003
30	V Channel	Hindi	Digital	Encrypted	May 2003
31	Zee Cinema	Hindi	Digital	Encrypted	May 2003
32	Zee English	English	Digital	Encrypted	May 2003
33	Zee International	Hindi	Digital	Encrypted	May 2003
34	Zee MGM	English	Digital	Encrypted	May 2003
35	Zee News	Hindi	Digital	Encrypted	May 2003
36	Zee TV	Hindi	Digital	Encrypted	May 2003
37	Asianet	Malayalam	Digital FTA	FTA	May 2003



38	CCTV 4	Chinese	Digital FTA	FTA	May 2003
39	CCTV 5	English	Digital FTA	FTA	May 2003
40	Channel Eye	Bangla	Digital FTA	FTA	May 2003
41	Channel News Asia	English	Digital FTA	FTA	May 2003
42	D W TV	French	Digital FTA	FTA	May 2003
43	DD Andhra	Telugu	Digital FTA	FTA	May 2003
44	DD Bhatti	Hindi	Digital FTA	FTA	May 2003
45	DD International	Hindi	Digital FTA	FTA	May 2003
46	DD Metm	Hindi	Digital FTA	FTA	May 2003
47	DD National	Hindi	Analog	FTA	May 2003
48	DD World	Hindi	Digital FTA	FTA	May 2003
49	DD_2	Hindi	Digital FTA	FTA	May 2003
50	DD-1	Hindi	Analog	FTA	May 2003
51	DD-12	Jamma	Analog	FTA	May 2003
52	DD-14	Rajasthan	Analog	FTA	May 2003
53	DD-15		Analog	FTA	May 2003
54	DD-16	Hindi	Analog	FTA	May 2003
55	DD-17	Bihar	Analog	FTA	May 2003
56	DD-18	Punjab	Analog	FTA	May 2003
57	DD-19	Himachal	Analog	FTA	May 2003
58	DD-2	Hindi	Analog	FTA	May 2003
59	DD-20	Bihar	Analog	FTA	May 2003
60	DD-5	Tami	Analog	FTA	May 2003
61	DD-6	Oriya	Analog	FTA	May 2003
62	DD-7	Bangali	Analog	FTA	May 2003
63	DD-8	Telugu	Analog	FTA	May 2003
64	ETC	Hindi	Digital FTA	FTA	May 2003
65	ETC Punjab	Punjab	Digital FTA	FTA	May 2003
66	ETV Bangla	Bangla	Digital FTA	FTA	May 2003
67	ETV Telugu	Telugu	Digital FTA	FTA	May 2003
68	Gujran	Gujrat	Digital FTA	FTA	May 2003
69	MAA TV	Telugu	Digital FTA	FTA	May 2003
70	MTV	Hindi	Digital	FTA	May 2003
71	NHK	Japanese	Digital FTA	FTA	May 2003
72	Prabhat	Hindi	Digital FTA	FTA	May 2003
73	Sanskar	Hindi	Digital FTA	FTA	May 2003
74	Southern Spice	South India	Digital FTA	FTA	May 2003
	Mubin				
75	Splash	English	Digital FTA	FTA	May 2003
76	Udaya News	Karnada	Digital FTA	FTA	May 2003
77	Sahara	Hindi	Digital FTA	FTA	May 2003
78	Sahara Samay	Hindi	Digital FTA	FTA	May 2003
79	Headlines Today	English	Digital FTA	FTA	May 2003
80	Aa Tak	Hindi	Digital FTA	FTA	May 2003
81	BBC	English	Digital FTA	FTA	May 2003
82	Zee Music	Hindi	Digital FTA	FTA	May 2003