

Telecom Regulatory Authority of India

Recommendations on Headend-In-The-Sky (HITS)

New Delhi: October 17, 2007

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Preface

1. TRAI received a reference from Ministry of Information and Broadcasting seeking recommendations on policy formulation about headend in the sky (HITS). Recommendations were sought on detailed policy framework required on HITS so as to enable the Ministry to take a view.

2. With the aim of promoting digitalization and addressability, Conditional Access System (CAS) has been rolled out with effect from 31st December, 2006, in some areas of Delhi, Mumbai and Kolkata, while it is in place in Chennai since 2003. Direct to Home (DTH) has also taken off at a fast pace in the last one year. HITS is another delivery platform to distribute the signals digitally to meet the twin requirements of digitalization and addressability.

3. After carrying out wide ranging consultations with the stakeholders in a spirit of transparency, the Authority has now finalized its recommendations which are being forwarded to the Ministry of Information and Broadcasting. Once the Ministry takes a final decision on these recommendations, the digitalization in the cable TV segment will take off at a faster pace. The digitalization will also overcome the problem of addressability and capacity constraints of cable TV in carrying an ever increasing number of TV channels.

4. While finalizing the recommendations, consumer's interests have been uppermost because it is the consumer who needs quality TV transmission, addressability and all this service at an affordable price. With the operationalisation of HITS, the competition between DTH and digital cable network will work for the ultimate benefit of the consumer. The availability and viability of existing vast cable TV network, the need to digitalize this network, and the needs and expectations of stakeholders in the distribution chain have also been kept in mind at every stage of framing these recommendations. We are confident that with the advent of HITS, nearly 300 million people in 71 million cable TV homes will benefit by a vastly improved cable TV service.

(Nripendra Misra) Chairman, TRAI

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Chapter 1. Introduction

Background

- 1.1 Telecom Regulatory Authority of India (also referred to as the Authority or TRAI) received a reference (Annex-I) from Ministry of Information and Broadcasting requesting for recommendations on detailed policy framework for "Headend In The Sky" (HITS) so as to enable the Ministry to take a view in the matter.
- 1.2 Authority in its earlier recommendations dated 14th September, 2005 had cited the need for a policy framework for HITS. The relevant para 5.8.4 in the recommendations dated 14th September, 2005 is as under:-

"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".

1.3 Although permission was granted to two companies for providing HITS operation by the Ministry of Information and Broadcasting, neither of the companies is providing HITS service as on date. The service could not be started due to difficulty in getting content and slow progress of addressability. The difficulty in getting the content also led to litigation, which is still pending in MRTPC.

Development of Cable TV Services in India

- 1.4 The cable TV segment in India has an enormous reach today. As per the industry estimates, there are 120 million TV Homes in the country, out of which about 71 million are served by cable TV network, 6 million by DTH and the rest by terrestrial TV.
- 1.5 The penetration of cable TV homes is approximately 71 million in a span of about 16-17 years. The cable TV network is faced with the problems of lack of transparency

in determination of actual number of cable connections, monopoly in the last-mile cable operations, and a highly fragmented state at the lower level of the distribution chain. Non-addressability is the main reason for controversy over actual number of cable TV homes. The disputes are rampant, revenues are uncertain and investments for up-gradation are not easily forthcoming.

- 1.6 Over the last few years, the number of channels being offered on cable television has also rapidly increased. Apart from some ground-based channels, there are, at present, about 270 satellite channels registered under uplinking/downlinking guidelines of Ministry of Information & Broadcasting, and approximately 70 more channels are awaiting permission. Although the capacity of the cable networks has been significantly enhanced over time, they are not able to cope up with the demand for space from new channels. Typically, the cable network capacity varies from about 40 channels to about 70-80 channels.
- 1.7 Apart from the terrestrial network of Doordarshan (a public service broadcaster) and the newly emerging technologies like IPTV etc, there are at present basically two delivery platforms available for distribution of TV channels to the subscribers, viz., the cable TV distribution network and the Direct to Home (DTH) service. DTH and IPTV are addressable and digital platforms, whereas the cable distribution is mostly un-addressable analogue platform, except in the notified areas for Conditional Access System (CAS). CAS has been rolled out in Chennai and in CAS notified pockets of Delhi, Mumbai and Kolkata. Voluntary CAS is also being offered at a few places in the country.
- 1.8 HITS is a delivery platform to distribute the digital to meet the requirements of digital reception and addressability in consumer's interest. This mode of delivery has the advantage of spreading digitalization throughout the country <u>at one go</u> because of the country-wide footprints of HITS. During the consultation process, HITS emerged as an important means of digital delivery of TV channels. TRAI had, in its recommendations on "Digitalisation of Cable Television" dated 14th September, 2005, also suggested the need for a clear policy framework for HITS.

Consultation Process

- 1.9 After receiving the reference from the Ministry of Information and Broadcasting in Government of India, the Authority initiated the process of seeking comments of the stakeholders. Consultation paper on the issue was issued on 24th July, 2007. Comments were received from 18 stakeholders and the same were placed on the TRAI's website www.trai.gov.in on 24th August, 2007. An open house discussion with the stakeholders was held on 27th August, 2007, at Delhi.
- 1.10 The consultation paper covers issues like scope of HITS operation, frequency band for HITS transmission, FDI limit, entry fee, annual fee, uplinking/downlinking, spectrum fee, interconnection agreements between content provider and HITS operator, offering of value added services by HITS operator, "must carry/ must provide" provisions, networth of company providing HITS services and cross holding restrictions etc. The specific issues raised in consultation paper were as under:-
 - 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 of the consultation paper?
 - (ii) Whether HITS operations should be allowed in C-Band or in Ku band or in both?
 - (iii) 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 consumer also directly? If yes, then whether the restriction on DTH to service end customer only needs any review.
 - (iv) 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?
 - (v) What should be the entry fee and the annual license fee for HITS?
 - (vi) Whether HITS operator should be allowed to uplink from outside India also?

- (vii) 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 form India?
- (viii) Should any interconnection issues be addressed in licensing conditions?
- (ix) Should spectrum charges be recommended to be done away with for HITS service provider?
- (x) Should there be any cross holding restriction? If yes, please suggest the nature and quantum of restrictions.
- (xi) Should HITS operator be allowed to offer value added services?
- (xii) Whether "must carry/must provide" conditions be imposed on HITS operation?
- (xiii) Whether a stipulated networth of specified amount be made as an eligibility criteria to avoid any non-serious applicant?

Framing guidelines for policy framework on HITS

- 1.11 While framing guidelines for policy framework on HITS, the Authority was guided by the basic objective of digitalization of cable TV network in the country. The Authority has also kept in mind the existing legacy in the form of cable network of about 6000 multi system operators (MSOs) and about 60,000 last mile cable operators, who have helped in reaching 71 million cable TV homes in a span of 16-17 years. As these are the backbone of the cable industry, their capability to keep pace with the need for digitalization of the cable TV platform was given due consideration.
- 1.12 Chapter 2 contains the recommendations based on an analysis of different issues which were posed for consultation and are necessary while framing a policy on the HITS. Chapter 3 contains the recommendations in brief.

Chapter 2. Analysis of Policy Issues

Policy framework for HITS

2.1 At present, there are broadly two policy frameworks as far as distribution of channels through satellite are concerned, one relating to DTH and another relating to uplinking/downlinking guidelines. DTH cannot be used for transmitting signals to cable operators because DTH is meant for direct transmission to subscribers. Moreover, in the business model of DTH, there is no sharing of revenue by the DTH operators with any other intermediary, unlike cable TV operation where the MSO has to share subscription revenue with the last mile cable operator (apart from sharing it with the broadcaster). Uplinking/downlinking guidelines are meant for broadcasters to uplink/downlink their channels. Thus, the existing policy framework does not cover the distribution of channels of multiple broadcasters in one stream from a single source through satellite to cable operators. Various policy issues were highlighted in the consultation process for Headend-In-The-Sky (HITS) service for distribution of channels of multiple broadcasters through satellite. These issues are analysed in the following paragraphs.

Issue I. Scope of HITS operation

- 2.2 There can be broadly three models in which services through the HITS platform can be provided. In the first model, the HITS operator contracts 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 are then permitted to 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.
- 2.3 In the second model, the HITS operator merely provides passive infrastructure facilities on his satellite 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 infrastructure facilities would normally consist of transponder space on satellite, earth station facilities and the provision for simulcrypting/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 of uplinking 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.

- 2.4 In the third model, which is a hybrid of the first two models, the HITS operator is free to use his satellite's transponder capacity both for transmitting his own aggregrated content, as well as to provide passive infrastructure to other MSOs for uplinking/downlinking their aggregrated content.
- 2.5 The issue for consultation was which of the three models would best serve the purpose for the HITS operator in distributing the signals through cable operators.

Comments of the Stakeholders

- 2.6 Many stakeholders are of the view that the third (i.e. hybrid) model of HITS operation should be adopted. According to them, the hybrid model is having distinct advantages for roll out of the digitalization and conditional access at a faster pace. Some of the reasons cited are as follows-
 - The first model gives end-to-end solution, while the second model offers infrastructure facility to service providers, and the third (hybrid) model offers both.
 - The second model benefits MSOs to roll out digital services without incurring huge investments on headend infrastructure.
 - The third (hybrid) model incorporates the good features of both the models.
 - Simulcrypt facility would enable MSOs to share the satellite capacity as well as bringing down the recurring transponder costs.
- 2.7 Some of the stakeholders are of the view that only first model (in which a HITS operator acts as a content aggregator and provide the signal to the cable operator through satellite) should be considered for HITS operation. The various reason cited for suggesting only first model are as follows-
 - Every service provider should provide end-to-end service/solution.

- Only end-to-end players would be able to provide quality service at competitive rate. Since in the second model, no single entity would be responsible for maintaining the quality of service on an end to end basis, this would result in poor service level and not in the interest of the customers.
- Operation in the second model would not be viable as another player is being added in the value chain.
- In the second model, it would not be possible to integrate different CAS and SMS of MSOs in simulcrypt.

Analysis of the issue

- 2.8 In all the three 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.
- 2.9 All the three models have potential of roll out of digitalization of cable TV services. Though first model of HITS gives end to end solution of the service to the cable operators across the country, the second model has potential to cater to the needs of multiple MSOs to reach the cable operators across the country.
- 2.10 The Authority feels that the third (hybrid) model is the most suitable model because of the following reasons:
 - (i) It combines the good features of both the first and the second model, thus allowing enough flexibility to the HITS operator to configure his technical and business framework appropriately.
 - (ii) It would permit optimum utilisation of transponder capacity.
 - (iii) It would not be difficult for the HITS operator in the hybrid model to ensure quality of service even for the MSO to whom the HITS operator is offering passive infrastructure services. This can be done, for example, by the MSO by outsourcing some of the activities such as subscriber management system etc. to the HITS operator.
- 2.11 Therefore, the Authority is of the view that for faster digitalization of cable service, the HITS policy should allow the hybrid model whereby the HITS operator can work both as a conventional MSO (except that the headend would be

in the sky) as well as passive infrastructure provider to other MSOs/cable operators who wish to use the facility for uplinking/downlinking their own aggregated content. The choice of operation should be left to the HITS operator.

Issue II. Frequency band for HITS transmission

- 2.12 The existing DTH license condition requires that the uplinking and downlinking of TV channels will be done in Ku Band. On the other hand, the permission for HITS operation was granted to two teleport licensees in C Band. This HITS permission also requires that the downlink Effective Isotropic Radiated Power (EIRP) should be less than 33 dbW. The intention behind these special conditions in case of permission to HITS operator perhaps could be to keep the two platforms of DTH and HITS distinct and separate to increase competition.
- 2.13 The issue for consultation with the stakeholders was whether the HITS operation be allowed both in "Ku band" and "C band" or only in 'C band'. Also, if both bands are to be allowed, then whether the existing restriction on DTH for transmission under Ku band should also be reviewed.

Comments of the Stakeholders

- 2.14 The stakeholders are divided on the issue of band of operation. The service providers of cable services are more in favour of having the band of operation in 'C' band, while the DTH operators are inclined towards HITS operation in both 'Ku' and 'C' bands. However no one preferred only Ku band for HITS operation.
- 2.15 The Multi system operators and some other stakeholders are of the opinion that the HITS should operate in 'C' band only. The reasons cited for such operations are as follows-
 - Though technically HITS can operate in both C Band and Ku Bands, keeping Ku band for DTH service and C band for HITS operation will help distinguish between these two services.
 - Since HITS platform would distribute channels to a larger subscriber base through cable operators, technically C Band would be preferred over Ku Band as C Band is not prone to signal disturbances due to rain etc.

- If HITS is allowed in Ku band, then piracy is very difficult to detect or to eliminate as both HITS and DTH would be using the Ku band and it would be difficult to distinguish the transmission feed at the consumer end.
- If HITS is allowed in Ku band, then the HITS operator would be tempted to transmit channels directly to subscribers like a DTH operator in order to avoid sharing of revenue with cable operators. This will not only prevent digitalisation of cable network, it will also reduce competition among delivery platforms. On the other hand, the permission already issued for HITS operation in 'C' band along with downlinking EIRP restriction of 33 DbW will require antenna sizes of 4 meters (12 feet) or above by cable operators. Such dishes can only be mounted by cable operators and it will maintain a clear distinction between the cable operators and DTH operators.
- Ku band transponder capacity is scarce and allowing additional services on it will result in increase in demand and hence prices of the Ku band transponders.
- Cable TV networking is at present based on C- Band signal domain processing over fiber and coaxial cable. HITS is being aimed at facilitating CAS roll out over Cable TV networks expeditiously by adding a wireless satellite re-transmission link to the existing domain. Hence HITS should logically remain confined to C-Band to be delivered through an intermediary like a cable operator.
- 2.16 The stakeholders, who are in favour of operation in both the bands, have mainly relied on the following arguments for such operation in both the bands
 - There is nothing wrong about putting in place an enabling mechanism which allows the operator to choose the technology C band or Ku band. The rationale is that the decision about C-Band or Ku Band would ultimately be guided by commercial considerations.
 - There is neither a technical necessity nor does it serve public interest to create an artificial compartmentalization of services by restricting HITS

only in C band and DTH in Ku band. Therefore, since technology permits use of both the bands, it may be left to the choice of HITS Operator to exercise the option.

- The HITS operation should be allowed in both and indeed in any other frequency bands for which sufficient capacity is or may be available with adequate coverage over India. The distinction between this type of service and DTH should be made with reference to whom the service is offered, and **not** with reference to technical parameters such as frequency band and effective isotropic radiated power (EIRP).
- The differentiating factor between DTH and HITS should be based on the type of set top box (STB) used rather than the band of operation. HITS operator should be allowed to use only Quadrature Amplitude Modulation (QAM) STBs, i.e., Cable TV compatible Set Top Boxes and whereas DTH players should be allowed to use only Quadrature Phase Shift Keying (QPSK) STBs (Satellite transmission compatible STBs) to receive these signals. In fact, once the use of QAM STBs is defined only for HITS and QPSK STBs for DTH, it is ensured that HITS is not suitable for "direct to subscriber mode" because the cost of transmodulators for converting from QPSK to QAM quite high for an individual user.

Analysis of the Issue

2.17 It is evident from the existing licensing provisions for the DTH operators as well as from the two HITS permissions issued so far that band separation (i.e., Ku band for DTH and C band for HITS) method has been used mainly to ensure that DTH is used only for reception by subscribers while HITS is used for reception by cable operators. The intention is that DTH operators and HITS operators should not poach into each other's target groups. However, the Authority is of the view that distinction between the two target groups can be maintained even without insisting on band separation. This can be done by stipulating that HITS operators under the Cable Act. In addition, the HITS operators should supply signals only through QAM set top boxes. Further, if it is found that inspite of these restrictions, the HITS operator has been supplying signals to persons other than cable operators would bring it to the notice of competent

authority who will then take stringent action for such violations of licensing conditions. Moreover, the Authority also feels that spectrum/band neutrality is a more progressive form of regulation so long as the objective of digitalising the cable network is achieved. It is in line with the technological and service neutrality goals of the Authority.

- 2.18 Finally, it needs to be mentioned that under the existing uplinking/downlinking guidelines, the broadcasters are permitted to provide signals only to registered cable operators and to licensed DTH operators. This needs to be amended to ensure that broadcasters should provide signals to all distributors of TV channels including Cable operators, DTH operators, HITS operators, IPTV service providers etc.
- 2.19 Thus, to sum up this issue, the Authority makes the following recommendations:
 - (i) There should not be any transmission band restriction for HITS operators.
 - (ii) The uplinking/downlinking guidelines should be amended to enable the broadcasters to provide signals to all distributors of TV channels such as cable operators, multi-system operators, DTH operators, HITS operators, IPTV service providers etc.

Issue III. Target Group

- 2.20 The issue whether the HITS operator should serve only the cable operators or both the cable operators and the consumers directly through satellite was deliberated in the consultative process with the stakeholders. Currently DTH operators are allowed to access the subscribers directly through satellite and are not allowed to offer services to the customers through any intermediary. An MSO can offer the cable services to the subscriber either directly on cable or through a cable operator. Currently MSOs are reaching the cable operator through terrestrial network.
- 2.21 The consultation also covered the issue as to whether the restriction on DTH to serve only the end customer directly needs a review if a HITS operator is allowed to serve end customer directly through satellite in addition to cable operator.

Comments of the stakeholders

2.22 There were varied responses of the stakeholders on this issue. The broadcasters and some of the MSOs were of the opinion that the HITS operator should not be allowed

to access the subscriber directly through the satellite. Mainly the following arguments were made in support of their views-

- The distinction between a HITS operator and a DTH operator must be maintained for the sake of competition. If the HITS operator is allowed to give signals directly through the satellite to subscribers, then the distinction between DTH and HITS would be obliterated.
- One advantage in the introduction of HITS is that cable operators would not be required to make huge investment on encryption devices etc. This would enable faster digitalisation of cable network. If HITS operator is allowed to service the subscribers directly through satellite, then the cable networks would be denied this benefit.
- To promote competition and to avoid market dominance by vertically and horizontally integerated players.
- 2.23 Some of the stakeholders, who are in the support of having no restriction on the target groups of HITS, have also favoured a review of DTH licence to enable them to serve cable operators in addition to serving customers directly. The rationale for this point of view is summarized below-
 - Cost of investment in HITS is similar to DTH
 - Restriction will only limit the expansion of market. The expansion of scope of the licenses of HITS and DTH would help achieve the economy of scale, digitalise cable network, introduction of addressability on cable etc.
 - Permitting both the DTH and HITS license to serve end customer as well as cable operators would enable level playing field amongst all addressable platform.
- 2.24 One of the stakeholders is of the view that the issue of serving the end customers should not be seen only in terms of distinction between the services. The level playing field among different delivery platforms should also be taken into account. If the entry and licence fee etc. are lower for HITS than the DTH, then the HITS operation should be restricted only to the cable operators, otherwise it should be allowed to service the subscriber directly also through satellite. One other

stakeholders is of the view that there should not be any difference between DTH and HITS and both the operations should be merged under one license.

Analysis of the Issue

- 2.25 The Authority is conscious of the fact that more than 90% of the cable & satellite homes in this country are presently served by cable TV network. This is an important legacy issue which cannot be overlooked. If such a vast cable network, serviced by 6000 MSOs and nearly 60,000 last mile cable operators, is to be digitalised in a conventional manner by setting up digital headends for each MSO in each city/town, then it will require an investment of more than Rs 15,000 crores, apart from a very long time required for the same. On the other hand, if HITS is operationalised to provide signals to cable operators, then the capital expenditure is much less at almost Rs 1300 crore, and the timeframe is also shorter.
- 2.26 The second factor which has weighed heavily with the Authority in decided this issue is that the consumer's interests are best served by ensuring competition not only among a number of operators of a given delivery platform (such as DTH), but also by competition among different delivery platforms such as cable TV network, DTH, IPTV etc. In order that such competition among different delivery platforms is effective, it is again necessary to ensure digitalisation of cable TV network, so that it can compete effectively with other platforms such as DTH, IPTV etc. which are digital.
- 2.27 It is against this background that the Authority has come to the conclusion that the objective of this exercise should be to digitialise the cable TV network as soon as possible, and at the least cost. The question that arises now is whether this objective would be served best by allowing HITS operator the freedom to serve both the cable operators and the consumers directly through satellite, or whether the HITS operator should be restricted to serve only the cable operators through his satellite service. While seeking an answer to this question, we need to remember two facts, namely, that the capital expenditure requirement of both the HITS and DTH are similar in magnitude, and that HITS operator will have to share revenue with cable operator while the DTH operator does not have to share his revenues with any other intermediary. Such being the case, if the HITS operator is given the freedom to serve both the cable operators as well consumers directly through satellite, then he may

choose to serve the consumers directly because then he will not have to share the revenue with the cable operator. In such a case, the HITS operator would merely become a DTH operator. There is no cap on the number of DTH licences which can be issued in the country, and there are six DTH contenders already at different stages of operation or preparation. The Authority prefers to encourage an environment wherein a digital cable operator is functional so that the consumers have choices, both of platforms and of operators.

- 2.28 Under the circumstance, the Authority recommends the following -
 - (i) The HITS operator should provide signals directly from his satellite only to the registered MSOs/cable operators. However, he need 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. This would provide a level playing field between the HITS operator and the MSO, because the latter also is free to provide signals through cable network both the last mile cable operators as well as to consumers directly. However, under no circumstances should the HITS operator provide signals directly from his satellite to the consumer.
 - (ii) The signals would be provided only through QAM set top box.

Issue IV. Foreign investments and Foreign Direct Investment (FDI) Limit

- 2.29 HITS would require large investment for its operation. It requires investment in hiring of satellite space and transponders and setting up of earth stations. The HITS service would rely on the extensive cable network for reaching the consumer homes. The transmission in digital and addressable form would require huge investment in set top boxes (though recoverable) apart from requiring substantial funds for acquiring content for distribution.
- 2.30 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 a further inter se restriction of 20% on foreign direct investment component. On the other hand, the FDI limit in telecom sector has been pegged at 74%.

2.31 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 issue of FDI was raised for consultation.

Comments of the Stakeholders

- 2.32 While responding to this issue, the stakeholders were mainly concerned about the sensitivity of media sector and the level playing field among different delivery platforms. Major arguments put forward in support of FDI limit of 49% or less are as follows-
 - Cable service is not organised, and hence it is not attracting even 49% foreign investment. No cable company has ever reached a level of foreign investment of more than 30%.
 - For maintaining level playing field, the FDI limit of HITS should be equal to that of cable distribution of 49%. These limits could be reviewed at a later stage once digitalization of cable distribution systems spreads.
 - HITS operation is having impact on the delivery of the content to the subscriber via cable operator and, therefore, for security reasons, it should not be enhanced and kept at par with Cable Networks, Teleports and DTH.
 - The media sector is a very sensitive sector and since it is a nationwide distribution through HITS, it needs a treatment different from telecom sector.
 - High investment is not needed because network of cable distribution is already in place. Therefore, investment is required only for consumer premises equipment and hence, it does not need high FDI. The existing permitted FDI limit of 49% is sufficient to take care of this investment.
 - Till a review of FDI limits in the broadcasting sector is carried, the existing FDI limits, as applicable to DTH services may be applied for HITS services.
 - Limits should be the same across all delivery media.
- 2.33 The stakeholders, who are in favour of higher foreign investments, made mainly the following arguments-
 - As the convergence in cable industry is already on, the FDI should be at

par with the telecom industry, which is at 74% currently. With deployment of Internet and VOIP services, FDI in cable sector should be accordingly increased and made at par with the Telecom Sector.

- In the absence of the FDI parity, the competitive IPTV technology being in telecom sector will continue to enjoy better access to the capital required to invest in the network upgrades. This is to the detriment of other addressable distribution platforms like cable and DTH. Therefore, in order to ensure a level playing field, 74% FDI be permitted across all addressable distribution platforms (including HITS).
- Since the content is monitored regularly, it is possible to control the sensitivity of the news broadcasted. There will be no loss of monitoring control as HITS will be done by an entity based in India.
- Since HITS operation would be an organized entity, hence, it would be possible for foreign investment to come into cable industry.

Analysis of the Issue

2.34 The rules regarding FDI today are highly divergent across sectors, applications and technologies. However, convergence of technologies is rapidly blurring the boundaries between telecommunications and broadcasting and it is must for the policy framework to adjust to this change. This would also help in facilitating competition. With increasing digitalization and convergence, it is possible for the broadcasting and cable service providers as well as telecom service providers to provide "triple play" services (voice, video and data) to their subscribers. Therefore, it is important that a consistent FDI policy is adopted across all sectors of Information, Communication and Entertainment industry. The present foreign investment limits for various sectors are as follows:

FM Radio:	20%
DTH:	20%
TV News Broadcasters:	26%
Cable Services:	49%
Telecom:	74%
ISP:	100%
Non news TV Broadcasters:	No limits laid down

- 2.35 The Authority has raised the issue of divergent FDI limits for different sectors in its earlier recommendations. This is necessary for consistency in policy and a level playing field among competing technologies in view of convergence of technologies. The cable industry will certainly move towards a more organised sector in the era of the competition from different delivery platform in coming years. The process of digitalization and countrywide operations needs huge investment, and it will definitely attract substantial foreign investment if there is appropriate enable environment. As far as the issue of media being a sensitive sector is concerned, it is to be kept in mind that HITS operation is only a means of carriage of the content of different broadcasters. Even today, for non news broadcasters, there is no FDI ceiling specified and these channels are being governed primarily by the downlinking guidelines. Therefore, when foreign investments can be allowed without any ceiling for content producers such as non-news broadcasters, there is no reason why HITS, which is only a carriage service provider, should be mandated to have a foreign investment ceiling of only 49%.
- 2.36 Therefore the Authority is of the view that there should be consistency in foreign investment policy and to ensure level playing field among competing technologies and therefore recommends that there is a need for a complete review of the FDI policy relating to carriage aspects of electronic media so that it is consistent across all sectors. This would ensure that policies are not a stumbling block where there is a natural convergence of technologies.
- 2.37 The Authority recommends that the total foreign investment including FDI for HITS should be 74% as in case of telecom sector in view of convergence of technologies.

Issue V. Entry fee and annual fee

2.38 In case of DTH license, one time non-refundable entry fee is Rs. 10 Crores. On the other hand, MSOs and cable operators are not required to pay any entry fee. The function of HITS operation is similar to a MSO with a difference that instated of sending the signals to the cable operators terrestrially, the signals are reaching the cable operators from satellite. At the same time, DTH and HITS platform are similar as far as technology and area of operation are concerned. Both carry and distribute broadcast television signals by first uplinking from an earth station to a satellite in

the sky for downlinking later, and the area of operation in both the cases is countrywide.

- 2.39 The interests of consumers would be best served if non-serious players were kept out from offering HITS services. The provision of entry fee in the policy is an efficient tool to restrain a non-serious player. It was against this background that the issue of entry fee and its amount for HITS operator were posed for consultation.
- 2.40 Further, as far as the issue of annual fee is concerned, there is a provision for payment of annual license fee equivalent to 10% of its gross annual revenue in the DTH license. On the other hand, the permission given to two teleport licensees 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. This is understandable since unlike DTH which reaches the consumers directly, the MSOs and cable operators have to share the revenues with each other.
- 2.41 Against this background, the issue raised for consultation was whether the annual fee as a percentage of revenue as in case of DTH operator be charged from the HITS operator as well, or whether the HITS operator should be treated at par with MSOs and cable operators.

Comments of the stakeholders

- 2.42 As far as entry fee is concerned, some of the stakeholders were of the view that either it should be kept at a minimum level or it should be refundable after roll out of the service. Others were of the view that it should be equal to the amount of entry fee as in the case of DTH.
- 2.43 The arguments received in favour of zero or refundable entry fee are as follows-
 - Since HITS operator will be like CAS service provider, annual fee should be same as of CAS service provider.
 - HITS being similar to the current business model of delivering the signals through cable distribution system, no extra revenue will be generated.
 - If entry fee is levied, then there would be no incentive left for the service provider to move from current business model of analogue mode to digital mode.

- Currently no entry fee is charged for cable services.
- Zero or refundable entry fee will help in developing the industry.
- 2.44 The reasons for the entry fee of 10 crores, equivalent to entry fee of DTH license, given by some of the stakeholders are as follows-
 - To maintain a level playing field with DTH, the entry fee should be similar.
 - Since HITS has a huge responsibility by way of offering the cable services throughout the country, non-serious player should be kept out.
 - Any differentiation between HITS and DTH for entry fee would be unfair and discriminatory to the DTH operator.
- 2.45 Some stakeholders are also in favour of having a refundable entry fee of 10 crores. The stakeholders are of the view that the entry fee should refunded after the roll out of the service by the HITS operator.
- 2.46 Regarding the annual fee, most of the operators are in favour of zero annual fee except some of the DTH operators. The reasons for zero annual fee mentioned are as follows-
 - Since MSOs/cable operators are not required to pay any annual fee for operating a terrestrial digital headend, there is no justification for having an annual fee for HITS operator as it is similar to the cable services with the difference of distributing the signals to cable operators through satellite.
 - Annual fee will ultimately burden the customer.
 - The cost involved in sending the signals to the end customer would be higher in case of HITS as compared to DTH service if the HITS operator has to pay annual fee besides sharing revenues with the cable operator. This will render HITS uncompetitive as compared to DTH, which would mean that cable network will not be digitalised.
 - Non-imposition of annual fee will help in developing the cable TV network. It will act like a catalyst in rolling out CAS and digitalization.
- 2.47 The major arguments put forward by some of the stakeholders in favour of imposing annual fee on HITS operators are as follows-

- HITS operator is not similar to conventional MSO. HITS has all India reach compare to a conventional MSO.
- Both HITS and DTH are comparable as they have all India reach.
- Any differentiation between HITS and DTH for annual fee would be unfair and discriminatory to the DTH operator.
- 2.48 In addition of above, some of the stakeholders were of the view that the annual fee should not be applicable for any distribution platform and they were in favour of either reducing or removing the annual fee of 10% revenue share in case of DTH service.

Analysis of the issue

- 2.49 It is advisable and also in consumer's interest not to have non-serious player in the market when the issue is offering services at all-India level. Since HITS is a pan-India operation, the entry fee is one such measure which will act as a deterrent for a non serious player. The Authority is of the firm view that since HITS operations will be country-wide, there should be an entry fee and the amount of entry fee should be atleast equal to the entry fee of DTH operation which is also an all India operation.
- 2.50 As far as annual fee is concerned, the operational model of a 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, the last mile cable operator. 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 HITS will be handicapped in competing with terrestrial MSOs who do not have to pay any revenue share. It will also not be cost-effective in comparison with the DTH operator because DTH does not have to share revenue with any intermediary. Thus the very purpose of digitalisation of cable services will be defeated.
- 2.51 The Authority is of the view that the entry fee for HITS operation should be Rs.10 crores. However, there should not be any annual fee for HITS operation in order to ensure its financial viability and to ensure that it can compete effectively both

with DTH and the terrestrial MSOs. This will lead to quick digitalisation of cable services.

Issue VI. Policy on Uplinking

- 2.52 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.
- 2.53 However, the existing downlinking guidelines for broadcasters permit channels to be uplinked from earth stations situated both within and outside the country, and the control over channels uplinked from abroad is exercised by necessitating permission cum registration under the downlinking guidelines. These downlinking guidelines also provide for a mechanism to facilitate monitoring.
- 2.54 It is against this background that the issue of uplinking the HITS service from outside India was raised. The suggestions on checks and balances, in case uplinking from outside India is allowed, were also invited during consultation process.

Comments of the Stakeholders

- 2.55 While responding to the issue, stakeholders have divergent views. A group of the stakeholders felt that uplinking should not allowed from outside India. The main arguments put forth by them are as under:-
 - If uplinking is from India only, then it is easy to monitor as monitoring facilities are already available.
 - Uplinking from outside India involves security risk as media is a sensitive sector.
 - There should be a level playing field with the DTH operator .
 - If uplinking is allowed from outside India, then Government will lose revenue which would otherwise accrue to it on account of allocation of spectrum.
 - There is a possibility that the content which is beamed via HITS from an uplink centre abroad may be altered and to continuously monitoring is a difficult task.

- If uplinking is from outside from India, then the downlinking policies will be difficult to be monitored as HITS operator's bundle of channels may constitute of channels which may or may not have the downlinking permission.
- If uplinking from outside India is permitted, then companies would prefer to uplink from outside India to gain benefit of relaxed tax regulations.
- 2.56 Stakeholder who were in favour of permitting uplinking both from within as well as from outside India, put forth the following arguments and also suggested the safeguard mechanism in case of uplinking from outside India:-
 - There is no harm in creating competition by uplinking from outside India and monitoring the content at downlinking stage, as is done in the case of broadcasters. This will help in faster growth of the HITS segment, and thereby create more competition.
 - There may be shortage of transponders on Indian satellites and allowing uplinking from outside India will facilitate entry of new entrants.
 - For making monitoring easy, only those channels should be allowed to be carried on HITS platform which have been given downlinking permission by the Ministry of Information and Broadcasting

Analysis of the Issue

2.57 Uplinking from India has no distinct advantage. There is no difficulty in allowing the uplinking from outside India for HITS operation, because an effective monitoring mechanism can be put in place at the downlinking stage. Even now, channels which are being uplinked from outside India are being registered under downlinking guidelines of Government of India and are allowed to be watched through cable distribution network . Similar monitoring mechanism can be built in the case of HITS also. Moreover, there is a perceived shortage of Ku-band transponders. Therefore, tying up the HITS operators to satellites available through ISRO by mandating uplinking from India may hamper roll out of HITS services because of fluctuating availability of transponders, both in C band and Ku band.

2.58 Therefore, the Authority recommends that

- (i) For faster digitalization of cable services, the HITS policy should not impose any restrictions regarding uplinking from India only. The HITS operator should be free to choose the uplinking location.
- (ii) The HITS operator shall uplink/downlink only those channels for which the broadcasters have received uplinking/downlinking permission from the government. Appropriate changes should also be made in the uplinking/downlinking policy for the broadcasters to enable the broadcasters to provide their signals to HITS operators, which is presently not envisaged.
- (iii) Further, in order to ensure proper monitoring, it should be compulsory that only an Indian company should be granted the license for HITS operations. Moreover, the subscriber management system (SMS) and encryption system should be located on Indian soil for an effective control over distribution and the monitoring of contents. The HITS operator should provide monitoring facility as prescribed by the Government from time to time. Appropriate conditions should also be stipulated for keeping records of the uplinked/downlinked channels.

Issue VII. Spectrum Fee

- 2.59 Being in broadcasting ("one-to-many") mode, the fee charged from the DTH licensee is only for the uplinking spectrum. However, in the case of point-to-point transmission of teleport operations, the charges are for both the uplink and downlink spectrum.
- 2.60 In TRAI's recommendations to the Government of India dated 29.04.2004 on 'Accelerating Growth of Internet and Broadband Penetration', the Authority had earlier 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.
- 2.61 Therefore, the issue of spectrum charges for HITS service was raised in the consultation paper.

Comments of the stakeholders

2.62 Many stakeholders were in favour of doing away with the spectrum charges for HITS service since it would enable rapid digitalization of cable services. Some stakeholders were of the view that parity should be maintained between HITS and DTH operators to maintain level playing field.

Analysis of the Issue

2.63 Both the DTH and the HITS operations take place in the broadcast (i.e., "one-tomany") mode. Therefore, the Authority sees no reason why parity should not be maintained between these two platforms as far as the issue of spectrum fee is concerned. Accordingly, **the Authority recommends that parity should be maintained between DTH and HITS services on the issue of spectrum fee.**

Issue VIII. Offering of Value Added Services

- 2.64 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 sense, the operation of HITS is similar to the DTH operation. However, HITS operator could use the telecom network for any reverse path communication to offer value added services like Video on Demand etc.
- 2.65 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 services, the offering of these type of services will be difficult.
- 2.66 As per clause 10.1 of the DTH license condition, the DTH facility cannot be used for other modes of communication such as voice, fax, data, communication, internet, etc. unless specific license for such services has been obtained from the competent authority. Apart from such services, there can be a number of other value added services such as video on demand, provision of electronic programme guide (EPG) etc. In the DTH license there are no restrictions on providing these types of value added services.
- 2.67 The permission of HITS operation has been given to two teleport operators as on date. These teleport licenses stipulate 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 by the two existing teleport operators. On the other hand, there is no restriction as such for an MSO as far as providing value added services are concerned.

2.68 In this context, the issue of the provision of value added services by HITS operator was raised for consultation. The question was whether the position similar to the DTH license should be made applicable to the HITS operator, or whether the existing formulation in the existing teleport licenses should be retained as it is.

Comments of the Stakeholders

2.69 There was a general consensus among the stakeholders that there should be no restriction on provision of value added services. However one stake holder was of the view that for value added services there should be provision of separate license.

Analysis of the Issue

2.70 The Authority is of the view that there should be no restriction on provision of value added services by the HITS operator because they enhance the usefulness of HITS operations. Therefore, the Authority recommends that HITS licensee should not be barred from providing any value added services which otherwise do not require any specific license or permission. Thus services such as voice, data, fax, etc. would not come within the purview of permitted value added services because these require separate telecom license.

Issue IX. Provisions relating to "Must Carry/Must provide"

2.71 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 interpretation of clause 7.6 had earlier resulted in a dispute between a broadcaster and a DTH operator which led to a judicial scrutiny and interpretation of clause 7.6 by Hon'ble TDSAT. The Hon'ble TDSAT had viewed that existing clause 7.6 in the DTH license cannot be interpreted to mean a "must carry" provision requiring a DTH operator to carry all the channels provided by a broadcaster, particularly in view of the fact that there are capacity constraints arising from limited number of transponders.

Comments of the Stakeholders

2.72 There was a general consensus among the stakeholders that the "must carry" interpretation even in the DTH licensing condition is not feasible, and it should also not be part of HITS licensing conditions. At the same time, the stakeholders felt that "must provide" provisions should be made obligatory for the broadcasters to provide the content required by the HITS operator.

Analysis of the Issue

- 2.73 Keeping in view the transponder capacity constraints, increase in the number of channels and business viability of carrying channels, the Authority feels that "must carry" provision should not be part of the HITS licensing conditions. However in the national interest, some channels of national importance telecast by Doordarshan should be compulsorily carried by the HITS operator as such provisions exist for other delivery platform also.
- 2.74 As far as "must provide" requirement is concerned, such provisions for the broadcasters are necessary for any distribution platform such as HITS, DTH or cable network to succeed. Otherwise, in the absence of such a provision, it would be difficult for the distribution platforms to source content and, as a result, that platform operator will not take off in the absence of popular content. However, these are essentially issues of interconnection, and there are appropriate provisions in this regard in the Interconnection Regulations already issued by the Authority. These Interconnection Regulations also provide for supply of signals by HITS operator on non-discriminatory basis to the MSOs/cable operators.
- 2.75 Keeping in view the forgoing, the Authority recommends:-

Except for the carriage of some channels of national importance of the public service broadcaster Doordarshan, there should be no "must carry" provision for the HITS operator.

Issue X. Networth of a company

2.76 Given the fact that HITS has a country-wide footprint and requires a high level of investment, it is necessary that only serious players should enter the field. Such entrants should be 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 his 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.

- 2.77 On the other hand, in the case of DTH guidelines, there is no eligibility condition 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 such a criterion, the entrants who have come in the DTH platform cannot be considered as non serious or financially not sound.
- 2.78 Therefore, the issue raised for consultation was whether there is any need for requirement of a networth of a specified amount as an eligibility requirement in the guidelines for HITS . If such a stipulation was desirable, then suggestions were further invited about the amount that should be prescribed as minimum networth.

Comments of the Stakeholders

- 2.79 Many stakeholders were not in favour of networth condition for the following reasons-
 - Market forces will take care of this issue.
 - Entry fee will take care of entry by serious players only, and there is no need for a separate stipulation about networth.
 - There is no precedent for networth requirement for any other platform.
- 2.80 Others, who are in favour of some kind of networth requirement, gave mainly the following reasons-
 - To ensure entry of genuinely serious and long term player.
 - The experience from CAS showed that a few MSOs, without having adequate financial and technological backup, had obtained permission in CAS notified area, but they failed to roll out CAS. Therefore, this requirement of networth is necessary.

Analysis of the issue

2.81 It is well known that HITS, being a pan India operation, requires large investments for rolling out the service. Moreover, it is important that a HITS operator is able to

withstand business fluctuations because he serves a very large number of consumers through the affiliated cable operators. Therefore, the Authority is of the view that a condition relating to networth of an applicant should be incorporated in the HITS policy. At the same time, the limit should not be very high so as to restrain a serious applicant from applying for HITS license.

2.82 Under the circumstances, the Authority recommends that a minimum networth requirement of Rs. 40 crores at the close of the immediately preceding financial year should be made a qualifying condition for applying for a HITS license.

Issue XI. Cross Holding Restrictions

- 2.83 The existing provisions in the 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."
- 2.84 The main reason behind such restrictions is to ensure that content providers and different distribution platforms should not become vertically or horizontally integrated, which will be against the interests of fostering competition. Since DTH services and cable networks through HITS are competing platforms for serving the customers, similar type of cross holding restriction could be considered in HITS license on the line of DTH license. The issue for consultation, therefore, was whether there should be any cross holding restriction in the case of HITS license.

Comments of the Stakeholders

- 2.85 Most of the stakeholders were of the view that there should be cross holding restrictions similar to that in the DTH license. In their view, this would essentially ensure that there is no vertical integration between two levels of delivery chain i.e. content providers and content distributors. Vertical Integration between Broadcasters, HITS Operators and Cable Operators would be against the interests of consumers as it would encourage discriminatory practices.
- 2.86 One of the stakeholders is of the view that cross holding restriction is necessary at least for an initial time period of 2-3 years. Thereafter, as and when the industry matures, this restriction could be reviewed.
- 2.87 There is another group of stakeholders who feel that there is no need to impose such restrictions. In their view, no vertically integrated entity can become the dominant player on the distribution side.

Analysis of the Issue

- 2.88 The Authority is of the view that cross holding restrictions is a must to avoid vertical integration and to prevent discriminatory practices among the players in the distribution chain. Such cross holding restrictions are required to promote true competition. In order to ensure that vertical integration does not take place between broadcasters and the HITS operators, it is necessary to build cross holding restrictions between these two categories of service providers. Similarly, in order to maintain a clear dividing line between DTH operators and HITS operators so as to maximize competition between these two competing distribution platforms, stipulations regarding cross holding restrictions should be built in here as well. However, for obvious reasons, there should not be any such restriction between the HITS operators on one hand and MSOs/cable operators on the other because HITS is expected to be part and parcel of cable operations. Indeed, MSOs/cable operators should be encouraged to become HITS operators because it will lead to faster digitalisation of the cable network.
- 2.89 Therefore, the Authority recommends that a HITS operator shall not allow Broadcasting Company(ies) and/or DTH licensee company(ies) to collectively hold or own more than 20% of the total paid up equity in its company at any time

during the License period. Simultaneously, the HITS Licensee 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 license 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 licensee and a MSO/cable operator company.

Issue XII. Roll out and performance bank guarantee

- 2.90 Although the issues of performance bank guarantee in relation to roll out obligations of HITS operations were not specifically put forward for consultation, the Authority has noticed that in spite of granting permission of HITS operation by the Government of India to two teleport operators way back in 2003, the HITS service has not been rolled out.
- 2.91 Therefore, the Authority is of the view that in consumer's interest and to promote rapid digitalization in cable service, some roll out obligation for HITS operator is a must. Therefore, the Authority recommends that a refundable performance bank guarantee of rupees 40 crores should be made part of the HITS license conditions. The corresponding roll out obligation to be met will be that the HITS licensee should commence uplinking/downlinking operations within a period of one year of receiving the spectrum allocation. The forfeiture provision should be such that half of the bank guarantee should be forfeited if an operator does not start service within one year of receiving spectrum allocation. Further, if the operator does not start the service within two years from the date of receiving spectrum allocation, the full performance bank guarantee should be forfeited and action for revocation of the licence should also be considered on completion of two years from the date of allocation/receiving of spectrum. If the HITS licensee fulfils the roll out obligation within one year of getting spectrum allocation, then full amount of performance bank guarantee will be refunded. If the HITS licensee meets the roll out obligation after one year but within two year of the spectrum allotment, then half of performance bank guarantee will be refunded.

Chapter 3. Summary of Recommendations

The summary of the recommendations is as follows-

- 3.1 For faster digitalization of cable service, the HITS policy should allow the hybrid model whereby the HITS operator can work both as a conventional MSO (except that the headend would be in the sky) as well as passive infrastructure provider to MSOs/cable who wish to use other operators the facility for uplinking/downlinking their own aggregated content. The choice of operation should be left to the HITS operator.
- 3.2 There should not be any transmission band restriction for HITS operators.
- 3.3 The uplinking/downlinking guidelines should be amended to enable the broadcasters to provide signals to all distributors of TV channels such as cable operators, multi-system operators, DTH operators, HITS operators, IPTV service providers etc.
- 3.4 The HITS operator should provide signals directly from his satellite only to the registered MSOs/cable operators. However, he need 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. This would provide a level playing field between the HITS operator and the MSO, because the latter also is free to provide signals through cable network both the last mile cable operators as well as to consumers directly. However, under no circumstances should the HITS operator provide signals directly from his satellite to the consumer. The signals would be provided only through QAM set top box.
- 3.5 The total foreign investment including FDI for HITS should be 74% as in case of telecom sector in view of convergence of technologies.
- 3.6 The entry fee for HITS operation should be Rs.10 crores. However, there should not be any annual fee for HITS operation in order to ensure its financial viability and to ensure that it can compete effectively both with DTH and the terrestrial MSOs. This will lead to quick digitalisation of cable services.

- 3.7 For faster digitalization of cable services, the HITS policy should not impose any restrictions regarding uplinking from India only. The HITS operator should be free to choose the uplinking location.
- 3.8 The HITS operator shall uplink/downlink only those channels for which the broadcasters have received uplinking/downlinking permission from the government. Appropriate changes should also be made in the uplinking/downlinking policy for the broadcasters to enable the broadcasters to provide their signals to HITS operators, which is presently not envisaged.
- 3.9 Further, in order to ensure proper monitoring, it should be compulsory that only an Indian company should be granted the license for HITS operations. Moreover, the subscriber management system (SMS) and encryption system should be located on Indian soil for an effective control over distribution and the monitoring of contents. The HITS operator should provide monitoring facility as prescribed by the Government from time to time. Appropriate conditions should also be stipulated for keeping records of the uplinked/downlinked channels.
- 3.10 The parity should be maintained between DTH and HITS services on the issue of spectrum fee.
- 3.11 HITS licensee should not be barred from providing any value added services which otherwise do not require any specific license or permission. Thus services such as voice, data, fax, etc. would not come within the purview of permitted value added services because these require separate telecom license.
- 3.12 Except for the carriage of some channels of national importance of the public service broadcaster Doordarshan, there should be no "must carry" provision for the HITS operator.
- 3.13 A minimum networth requirement of Rs. 40 crores at the close of the immediately preceding financial year should be made a qualifying condition for applying for a HITS license.
- 3.14 HITS operator shall not allow Broadcasting Company(ies) and/or DTH licensee company(ies) to collectively hold or own more than 20% of the total paid up equity in its company at any time during the License period. Simultaneously, the

HITS Licensee 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 license 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 licensee and a MSO/cable operator company.

3.15 A refundable performance bank guarantee of rupees 40 crores should be made part of the HITS license conditions. The corresponding roll out obligation to be met will be that the HITS licensee should commence uplinking/downlinking operations within a period of one year of receiving the spectrum allocation. The forfeiture provision should be such that half of the bank guarantee should be forfeited if an operator does not start service within one year of receiving spectrum allocation. Further, if the operator does not start the service within two years from the date of receiving spectrum allocation, the full performance bank guarantee should be forfeited and action for revocation of the licence should also be considered on completion of two years from the date of allocation/receiving of spectrum. If the HITS licensee fulfils the roll out obligation within one year of getting spectrum allocation, then full amount of performance bank guarantee will be refunded. If the HITS licensee meets the roll out obligation after one year but within two year of the spectrum allotment, then half of performance bank guarantee will be refunded.

Annexure I : Letter from Ministry of Information and Broadcasting



No.9/2/2005-BP&L

May 15, 2007.

Dear Shri RN Charbey,

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)

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