



Telecom Regulatory Authority of India



**Consultation Paper
on
Interconnection framework for
Broadcasting TV Services distributed through Addressable Systems**

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Written comments on the consultation paper are invited from the stakeholders by 03.06.2016 and counter comments, if any, may be submitted by 17.06.2016. Comments and counter comments will be posted on TRAI's website www.trai.gov.in . The comments and counter comments may be sent, preferably in electronic form to Sh. Sunil Kumar Singhal, Advisor (B&CS), Telecom Regulatory Authority of India, on the e-mail:- sksinghal@traigov.in or gs.kesarwani@traigov.in . For any clarification/ information, Sh. Sunil Kumar Singhal, Advisor (B&CS) may be contacted at Tel. No.: +91-11-23221509, Fax: +91-11-23220442.

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CHAPTER-1

INTRODUCTION

- 1.1 The Telecom Regulatory Authority of India Act, 1997 (the TRAI Act) entrusts, amongst others, the functions to ensure technical compatibility and effective interconnection between different service providers, fix the terms and conditions of interconnectivity as well as regulate arrangement amongst service providers for sharing their revenue derived from providing Broadcasting and Cable TV services (B&CS). The interconnection between service providers is a technical arrangement under which service providers connect their equipment and networks to enable subscribers to have access to the services. The Authority, in exercise of the powers conferred upon it by section 36, read with sub-clauses (ii), (iii), (iv) and (v) of clause (b) of sub-section (1) of section 11 of the TRAI Act, notifies interconnection regulations, from time to time. The interconnection regulations prescribe the regulatory framework for interconnection arrangements between the service providers. Based on this framework the service providers finalize the commercial and technical terms and conditions to arrive at an agreement.
- 1.2 The first interconnection regulation, for B&CS namely the Telecommunication (Broadcasting and Cable Services) Interconnection Regulation, 2004 (13 of 2004), were notified by TRAI on 10.12.2004 (hereinafter referred as the Interconnection Regulations, 2004). These were originally notified to regulate interconnection arrangements between service providers of broadcasting and cable services for re-transmission of signals in analogue mode, in vogue at that time. From time to time, need arose to clarify, as well as to expand the scope of the Interconnection Regulations, 2004 to include addressable platforms such as Direct to Home (DTH), Head-end In The Sky (HITS), Internet Protocol

Television (IPTV) etc. So far 9 amendments have been carried out in the Interconnection Regulations, 2004. The basic features of the Interconnection Regulations, 2004 inter alia, encompass the provisions for providing signals of a TV channel on non-discriminatory terms to distributors, the provisions for making Reference Interconnect Offer (RIO), the provisions for renewal of interconnection agreement, the procedure for disconnection of signals of TV channel, and the procedure for ascertaining the subscriber base for non-addressable systems.

- 1.3 The exceptional growth of the number of TV channels combined with the inherent limitations of analogue cable TV systems had posed several challenges, mainly due to capacity constraints and non-addressable nature of the network. The evolution of technology paved way for bringing about digitization with addressability in the cable TV sector. For implementation of digital addressable systems in the cable TV sector, the Central Government notified the Cable Television Networks (Amendment) Rules, 2012 on 28th April 2012. Immediately after the notification of the Cable TV Rules 2012, the Authority notified the Telecommunication (Broadcasting and Cable Services) Interconnection (Digital Addressable Cable Television Systems) Regulations, 2012 (9 of 2012) on 30th April, 2012 (hereinafter referred as the Interconnection Regulations, 2012). These regulations are specifically applicable for Digital Addressable Cable TV Systems (DAS), whereas the Interconnection Regulations, 2004, are applicable for non-addressable cable TV systems and also for other addressable systems such as DTH, HITS and IPTV. The basic features of the Interconnection Regulations, 2012 are similar to the basic features of the Interconnection Regulations, 2004, mentioned in Para 1.2 above.
- 1.4 With implementations of DAS, there has been a marked increase in number of subscribers receiving TV channels through addressable platforms. The number of subscribers being served by the DTH services

has also gone up significantly. HITS platforms are also expected to make fast penetration in making available digital broadcasting TV services in the country. Now majority of the subscribers in India are receiving TV signals through digital addressable systems.

- 1.5 The interconnection regulations ought to evolve to keep pace with new developments in the sector, while sustaining the fundamental underlying principles of non-discrimination and level playing field. The commercial parameters for revenue share between service providers primarily depend upon number of subscribers subscribing channels/ bouquets. The numbers of subscribers in each type of addressable platform are verifiable. To ensure non-discrimination and level playing field amongst the distributors using different digital addressable systems such as DTH, IPTV, HITS, and DAS, it would be in the fitness of things that all these service providers are regulated using the common regulatory framework.
- 1.6 This consultation paper aims at providing a regulatory framework for interconnection which ensures a level playing field to all types of digital addressable systems. The consultation paper also discusses issues that came up to the notice of the Authority and plausible ways of dealing with those issues in respect of digital addressable systems. The review of the existing regulatory framework is being done with the objective of fostering competition, increase trust amongst service providers, ease of doing business, reduce disputes, improve transparency and efficiency, promote sustainable, orderly growth and effective choice to consumers.
- 1.7 This consultation paper has been organized into 4 chapters. Chapter 2 provides details of salient features of the existing interconnection regulations and chapter 3 discusses the various issues relating to interconnection arrangements for addressable systems. Chapter 4 summarizes the issues for consultation.

CHAPTER-2

SALIENT FEATURES OF THE EXISTING INTERCONNECTION REGULATIONS

2.1 The existing interconnection regulations for broadcasting and cable services are based on the fundamental principles of non-exclusivity, must-provide, must-carry {for Multi System Operators (MSOs) in DAS}, non-discrimination, written agreement, and time bound provisioning of signals for fostering competition and level playing field so that services of good quality at competitive prices can be delivered to the subscribers. The salient features¹ of these regulations are mentioned in the following paragraphs:-

THE INTERCONNECTION REGULATIONS, 2004

2.2 The Interconnection Regulations, 2004 specifically prohibits a broadcaster to have any understanding or arrangement including exclusive contracts with any Distribution Platform Operator (DPO) which prevents the other DPO to get signals of TV channels. There exists a 'must provide' obligation on broadcasters to provide signals of TV channels to DPOs, on demand, on non-discriminatory terms and in a time bound manner. Similarly, MSOs, HITS and IPTV operators have the obligation of providing signals to Local Cable Operators (LCOs) on non-exclusive and non-discriminatory basis.

2.3 One of the key features of the Interconnection Regulations, 2004 is the mandatory declaration of Reference Interconnection Offers (RIOs) by the broadcasters for both addressable and non-addressable cable and

¹ The salient features of the existing regulations as discussed in this chapter are for the purpose of easy understanding and recapitulation only. Any details mentioned here is not the interpretation of regulatory framework by TRAI especially in any legal matter. For such purpose, the relevant regulations and associated explanatory memorandums may be referred.

satellite TV distribution systems. RIO of a broadcaster provides the technical and commercial terms and conditions based on which a broadcaster offers its channels/ bouquets of channels to various DPOs. Thus, the RIO framework provides a reference and a basis to the DPOs for arriving at an interconnection agreement. However, the existing interconnection regulations permit that a broadcaster may have a different RIO for different type of addressable systems. The technical and commercial terms and conditions, that should necessarily form part of the RIOs, have been prescribed. These terms and conditions include the calculation of license fee, payment terms, delivery and security terms, anti-piracy terms and technical audit methodology, norms for reporting and audit subscriptions, term of the contract, termination conditions and jurisdiction in respect of any dispute between the parties.

2.4 The Interconnection Regulations, 2004 provides a time frame for providing signals of TV channels to the seeker DPOs. A time period of 60 days has been stipulated to meet the obligation of providing signal under “must provide” clause. To protect interest of broadcasters, it has been provided that the obligation of ‘must provide’ does not apply in case of DPOs who have defaulted in payment or who seek signals of a particular TV channel from a broadcaster, while at the same time demand carriage fee for carrying that channel on its distribution platform. Further it has also been provided that any imposition of terms which are unreasonable shall be deemed to constitute denial of the request. For providing TV channel signal, one of the unreasonable term, which has been mentioned in the regulations, is the stipulation of “placement frequency” or “package/ tier” by the broadcaster as a “pre-condition” for making available signals of the requested channel(s).

2.5 The Interconnection Regulations, 2004 provides that DPOs using an addressable system, seeking interconnection with a broadcaster, shall

ensure that the addressable system being used by them satisfies the minimum technical specifications for Set-Top-Boxes (STBs), Conditional Access System (CAS), Fingerprinting & Subscribers Management System (SMS) as specified in the schedule IV of the Interconnection Regulations, 2004 (***attached at annexure***). It has been provided that in cases where a broadcaster is of the opinion that the addressable system being used by DPOs does not satisfy the minimum specifications, the DPOs shall get the addressable system audited by M/s. Broadcast Engineering Consultants India Ltd. (BECIL) and shall obtain a certificate to the effect and the findings of BECIL shall be final and binding on both the parties.

- 2.6 The Interconnection Regulations, 2004 further provides that the volume related scheme to establish price differentials based on number of subscribers shall not amount to discrimination if there is a standard scheme equally applicable to all similarly based DPOs. The regulation further exemplifies the meaning of “similarly placed distributor of TV channels”. The analysis of whether DPOs are similarly placed includes consideration of, but not limited to, factors such as whether DPOs operate within a geographical region and neighborhood, have roughly the same number of subscribers, purchase a similar service, use the same distribution technology. It has been further clarified that the DPOs using addressable systems cannot be said to be similarly based vis-à-vis DPOs using non addressable systems.
- 2.7 The Interconnection Regulations, 2004 has provisions relating to issuing a prior notice for disconnection of signals from Broadcasters to DPOs and DPOs to the LCOs and vice versa. A time period of 3 weeks have been provided in the regulations.
- 2.8 The Interconnection Regulations, 2004 puts an obligation on the broadcasters of pay channels to reduce the terms and conditions of the interconnection agreement in writing and provide a copy of the

interconnection agreement to the DPO. Similarly, DPOs must supply copy of interconnection agreement to the local cable operator within 15 days from the date of signing of the agreement.

- 2.9 The Interconnection Regulations, 2004 specifically prohibits that in addressable systems, service providers shall not stipulate, insist or provide for any clause in interconnection agreement which would require paying a minimum guaranteed amount as subscription fee for the services provided by them.
- 2.10 The Interconnection Regulations, 2004 also has the provisions for renewal of interconnection agreement and the procedure for ascertaining the subscriber base for non-addressable systems.

THE INTERCONNECTION REGULATIONS, 2012

- 2.11 The provisions in the Interconnection Regulations, 2012 for DAS are similar to the provisions of the Interconnection Regulation, 2004 pertaining to non-exclusivity, must-provide, non-discrimination, written agreement, time bound provisioning of signals, disconnection of signals of TV channels, and minimum technical specifications for addressable systems.
- 2.12 Like other addressable systems, one of the distinct features of DAS is that the number of subscribers subscribing a channel/ bouquet is verifiable and therefore the service providers can carry out their business transactions based on verifiable parameters.
- 2.13 In cable TV services provided through DAS, an obligation - known as 'must carry' provision - has been provided on part of MSOs, to provide access to platforms to the broadcasters on non-discriminatory basis. To ensure non-discrimination, the regulation provides that every MSO shall

publish RIO specifying the technical and commercial terms and conditions for providing access to its network, on non-exclusive basis, for re-transmission of channels of broadcasters and a period of 60 days has been stipulated to the MSOs to meet the obligation of providing access to the platform for re-transmission purpose. The MSOs can charge the carriage fee; however, it should be published and applied in a uniform, non-discriminatory and transparent manner. The carriage fee cannot be revised upward for a minimum period of 2 years.

- 2.14 It has been mandated that the provision of “must carry” will not apply in case of a broadcaster who has failed to pay the carriage fee as per the agreement and continues to be in default. To protect the interest of broadcasters it has been provided that imposition of unreasonable terms and conditions for providing access to the cable TV network shall amount to the denial of request for such access. MSOs need not carry channels under ‘must carry’ provision if the channel fails to attract at least 5% of the subscriber base, on an average, for 6 consecutive months.

CHAPTER-3

INTERCONNECTION FOR ADDRESSABLE SYSTEMS

3.1 Various service providers, for efficient delivery of broadcasting TV services, have to agree upon the technical and commercial arrangements under which they connect their equipment and networks, and provide the signals of TV channels and other related services to subscribers. In fulfilling this objective, a service provider in the value chain may act as a seeker or as a provider. For example, when a distributor seeks signals of TV channels from a broadcaster, it acts as a seeker and the broadcaster in such case becomes a provider of the signal. Whereas, when a broadcaster approaches a distributor for accessing its network for re-transmission of its channel(s) then it acts as a seeker and the distributor becomes a provider. The objective of providing a level playing field amongst seekers and providers can be met with the principles of transparency, non-exclusivity and non-discrimination.

COMMON INTERCONNECTION FRAMEWORK FOR ALL TYPES OF ADDRESSABLE SYSTEMS

3.2 The delivery mode of broadcasting TV services can be classified into two broad categories i.e. (1) Non-addressable Systems, and (2) Addressable Systems. The broadcasting TV services delivered through addressable systems have many advantages over non-addressable systems. It enables transparent business transactions, protection of content, reduces scope for disputes and improves monetisation of content. It enables the service providers to provide the subscribers with ample choice of channels/ bouquets with the improved picture quality. The Government of India has notified 31st December 2016 as the sunset date for analogue Cable TV services. Thereafter, the distribution of pay TV broadcasting TV services

would be only through addressable systems throughout the country. In India, different types of addressable systems like DTH, HITS, IPTV and DAS are in use for distribution of broadcasting TV service.

3.3 For addressable distribution systems, the primary input cost to a broadcaster comprises of the content and transmission costs. Both these costs are independent of the type of distribution platform. Hence, pricing of pay channels may also be uniform and non-discriminatory across all distribution platforms. Such equity in content cost will play a vital role in ensuring effective competition at distribution level. In addressable systems, the commercial parameters of interconnection between the service providers are transparent and are directly linked with the number of subscribers subscribing channels/ bouquets. Since the basis, i.e. the number of subscribers subscribing channels/ bouquets, for deciding subscription fee is common across the platforms, there may be a common framework for interconnection for all type of addressable systems. Such common regulatory framework may foster competition, promote orderly growth and result in better quality of services at competitive prices to the subscribers. This may also promote innovation and investment in cost efficient addressable distribution platforms. Any reduction in cost of distribution directly benefits consumers.

3.4 The other view could be that since the different distribution platforms use different network topologies and technologies, the cost of delivery of services through these platforms may also differ. Further, licensing conditions imposed also vary from platform to platform. Therefore, a specific regulatory framework for interconnection may need to be put in place for each type of addressable platforms such as DAS, DTH, HITS and IPTV. Presently, DAS is regulated as per the Interconnection Regulations, 2012, whereas DTH, HITS and IPTV along with analogue systems are regulated as per the Interconnection Regulations, 2004.

3.5 Apropos the above, the issues for consultation are:-

- a) **How a level playing field among different service providers using different addressable systems can be ensured?**
- b) **Should a common interconnection regulatory framework be mandated for all types of addressable systems?**

TRANSPARENCY, NON-DISCRIMINATION AND NON-EXCLUSIVITY

3.6 The non-discrimination obligation is pivotal to the interconnection regulations. It is must for effective competition and orderly growth of the broadcasting and cable services sector. However in past, on many occasions, the contours of this principle have been interpreted differently by different stakeholders. Many service providers are of the view that publication of RIO absolves them from the obligation of non-discrimination. At the same time, there is enormous divergence in the terms and conditions and these include subscription/ access fee between mutually agreed deals and agreements that have been signed on the basis of RIOs. Some stakeholders resort to narrow and varied interpretations of this principle leading to numerous disputes among service providers.

3.7 During the implementation of DAS, some DPOs have alleged at various fora that the broadcasters insist on discriminatory terms and conditions before signing mutual agreements for provisioning of signals of TV channels. As per DPOs, they have to accept the terms proposed by broadcasters for mutual agreement as the other option for obtaining the signal at the RIO rates is financially unviable/non-competitive in the market. DPOs have, on many occasions, alleged that the terms at which content is being provided by a broadcaster to say one DPO is substantially different from that of another DPO/s who may be operating

in a similar geographical area. As per them, since the interconnection agreement signed by a broadcaster with a DPO is presently deemed to be a commercially confidential document, it may not be possible for a particular DPO to know about the terms on which the signals are being provided to any other DPO. They have further submitted that, only if they get complete details of agreements of other DPOs they can claim and argue for against discrimination, firstly, with a broadcaster and, if necessary to do so take it up at an appropriate forum. This may essentially help in building mutual trust and address concerns about discrimination.

3.8 The broadcasters, who seek access to distribution platforms, claim that such discriminatory treatment is meted out to them also by DPOs while providing access to their platforms. Hence broadcasters have also voiced similar demands for transparency and confidence building measures from DPOs.

3.9 In order to address the issue of discriminatory terms and conditions including rates and reduce the incidence of such practices, one possible measure could be that service providers be mandated to disclose their interconnection agreements in the public domain. A counter argument could be that disclosure of such information may adversely affect the business interests of the service providers. A few stakeholders in the value chain may claim that they would be able to negotiate better deals with other service provider if the same terms and conditions are not taken as precedence.

3.10 The fundamental principles of non-exclusivity, must-provide, must-carry, written agreement, and time bound provisioning of signals as laid down by the Authority have largely paved the way for orderly growth in the broadcasting and cable services sector. Some may argue that while at

this juncture, a large number of broadcasters are present across popular genres; effective competition is limited due to the monopolistic nature of content. TV channels of a given broadcaster are still not readily substitutable by another broadcaster's channels in the perception of most consumers. Another view is that while there may be a large number of registered MSOs in a state/district the actual number of cable operators operational in a particular area maybe limited and in few cases, a sole cable operator may only exist. In order to reach the widest consumer base, carriage agreements become essential with most DPOs. The argument thus boils down to the fact that the market at the broadcasters end as well as at the distribution level is still oligopolistic or monopolistic in nature. As per proponents of this theory, while keeping in mind the present state of the sector and the nature of the prevailing issues, need for non-exclusivity, must-provide, and must-carry continue to remain relevant and thereby need to be retained till true choice becomes available for every stakeholder in the value chain. Others may however argue that principles of non-exclusivity, must-provide, and must-carry have outlived their purpose and the sector has evolved from its nascent state to a mature state. A large number of broadcasters and distributors in the sector have created a competitive market and such principles of non-exclusivity, must-provide and must-carry can be done away with.

- 3.11 The established concept of RIO enables putting in place a method to fulfill the objective need for the principles of non-exclusivity, must-provide and must-carry as discussed above. The RIO is a reference document based on which service providers offer their services or platforms to seekers. A broadcaster is required to publish a RIO on its website with complete visibility on the technical and commercial terms and conditions for providing signals of its TV channels to DPOs. Similarly, an MSO providing cable TV services through DAS is required to

publish its RIO for providing access to its platform for re-transmission of such TV signals through its network. The RIO may include the details relating to delivery and security terms, term of the contract, anti-piracy terms, norms for reporting subscriptions, payment terms, audit methodology, jurisdictional aspects in the event of any dispute between the parties and termination conditions etc. Obligation on the service provider to publish its RIO provides it the freedom within the ambit of the regulatory framework, to set forth the technical and commercial terms and conditions to protect their business interest while at the same time, it assists in providing a level playing field for all stakeholders.

3.12 The existing regulatory framework necessitates mandatorily offering of channels only on a-la-carte basis and offering of bouquet/(s) of channels is optional. Hence most RIOs published by broadcasters contains pricing details of a-la-carte channels only and bouquet prices are not offered in the RIOs. In the absence of published bouquet rates in the RIO, compliance with the 'twin conditions', as mandated in the regulatory framework, cannot be easily examined in such cases. Further, these RIOs generally do not declare any upfront discount schemes that are based on objectively quantified parameters which can then be availed by all distributors. A similar situation exists in case of the RIOs published by distributors while offering access to the use of their platforms for retransmission of TV signals.

3.13 As per the existing regulatory framework, the terms and conditions of interconnection agreement may either be mutually agreed or finalized as per the terms and conditions in the published RIO. However, even in the case of mutually agreed interconnection agreements, the RIO shall form the basis. In this context, it is also mentioned that all such mutually agreed interconnection agreements shall be within the existing regulatory framework. It is thus the responsibility of the provider as well as the

seeker to ensure that none of the conditions of interconnection agreement signed by them conflict with the existing regulatory framework. For example, the existing framework recognizes a-la-carte as well as bouquets. The mutual agreements must therefore reflect the conditions as per these existing provisions. Further, the RIOs published by the service provider must ensure that the terms of interconnection are in line with the existing provisions because even mutual agreements need to be done on the basis of such RIOs.

3.14 It has been observed that the terms and conditions of the interconnection agreement entered into by a service provider on the basis of mutual agreement are, on many occasions, at a tangent to the terms and conditions of the published RIO. A broadcaster and DPO often enter into an agreement for bouquet of channels which has not been offered in the published RIO. Frequently, in such cases, the subscription rates at which the a-la-carte channels have been agreed to are not found in the mutually agreed interconnection agreement. In the absence of a-la-carte channel rates in the agreement, compliance with twin conditions as mandated in the regulatory framework cannot be ascertained. DPOs submit that in the absence of mutually agreed a-la-carte channel rates in the agreement with broadcasters, they find it difficult to offer effective choice to the consumers. Such mutual agreements tend to defeat purpose of addressability that must empower a consumer in exercising choice while enabling a service provider to monetize its services based on actual subscription demand.

3.15 Many times, in the name of mutual agreements, new terminologies, which have different name than what is used and defined in the regulatory framework but with similar meaning, are used in the agreements with the purpose to avoid conflict with the regulatory framework. Sometimes, in the name of mutual agreements, the service

providers try to disregard the essential provisions of the regulations and interpret the regulatory framework in their own way defeating the true intent and purport of the regulations. Such practices often lead to disputes between service providers.

3.16 Presently, service providers offer their services or offer access to their platforms at RIO rates which are in great variance from what are prevalent in the market. Due to such unrealistic RIO rates, many times provider insists certain additional conditions to the seeker, which otherwise are not part of the published RIO. Such conditions are generally anticompetitive and manipulate the market dynamics. Non agreement to these conditions force seeker to enter into agreement in terms of RIO which may result in dispute.

3.17 To address these issues to a large extent, one possible solution could be that the published RIO clearly spells out, objectively and in sufficient detail, all the terms and conditions including rates and discounts, for each and every alternative in which manner provider is willing to arrive at an agreement. These could include a-la-carte and their different combinations/ assortment/ number of channels, so that the seeker unambiguously is aware of all options available to it before entering into an interconnection agreement. Such an arrangement may be made binding on broadcasters as well as distributors. As per proponents of this view, no additional benefit or discount should be offered by the provider to any seeker outside the construct of the published RIO, as this may militate the very principles of transparency and non-discrimination. Since providers would be at liberty to formulate and publish their comprehensive RIOs, well within the regulatory framework, it may still provide sufficient flexibility to various service providers to innovatively carry out their businesses. Further, to ensure effective choice to subscribers, just like RIO, it may be mandated that the interconnection

agreement, irrespective of mutually agreed or otherwise, must also have details of agreed rates of channels on a-la-carte basis. The details of providing rates of bouquet of channels in the interconnection agreement may be made optional.

3.18 Other view could be that it may not be possible practically to spell out all the terms and conditions for each and every alternative in the RIO as some other alternatives may also emerge during the mutual discussions and with the passage of time. If service providers can ensure non-discrimination and compliance to regulatory framework in letter and spirit, by adopting different approaches for RIO, then complete disclosures at RIO stage may not be made mandatory. As per proponents of this view, this degree of flexibility is desirable to face competition and deal with business uncertainties.

3.19 In cases where provider and seeker are unable to arrive at consensus on mutually agreed terms & conditions, the seeker retains the option to sign the interconnection agreement in consonance with the terms of & at rates published in the RIO. Since an RIO may have multiple options, for such cases a Standard Interconnection Agreement (SIA) format may need to be published by a provider and this may spell out an essential and sufficient set of the terms and conditions, except the prices, for such interconnection between a provider and seeker. It may be akin to an RIO less the availability of multiple options of terms and conditions. The prices and their associated terms may be chosen by seeker from the options available within the RIO and filled in the SIA to render and make it a final acceptable agreement.

3.20 A few distributors in general consisting of smaller MSOs in particular allege that broadcasters often demand unreasonable information/ documents before signing agreements to provide the TV signal. Such

demands as per them are used to delay or deny interconnection with an aim to scuttle competition amongst existing distributors.

3.21 It may be possible to mitigate issues relating to seeking of additional information/ documents by prescribing a common application format of application along with a standardised list of documents to be enclosed along with. The same can then be submitted by a DPO to the broadcaster while seeking TV channel signals. Similarly, a broadcaster seeking access to a DPO's platform can apply in a prescribed standard format while enclosing all specified documents accordingly relevant. All requisite documents can thus be enclosed at the moment of application itself and there shall be no scope for demanding any other additional documents from the seeker for signing of SIA. However, in case of mutual agreements, there may arise the need for some additional information that may be sought by provider from a seeker prior to arriving at the agreed to rates. Details of any such additional information that may be necessary prior to signing of a mutual agreement may also need to be mentioned in the RIO by provider.

3.22 In DAS, the regulatory framework contains a 'must carry' provision that enables a broadcaster of Hindi, English and Regional channels to access the platform of any MSO for re-transmission to the subscribers. MSOs while being allowed to fix the carriage fee has, however, been mandated that the same be published and applied in a uniform, non-discriminatory and transparent manner. However, there is no such 'must carry' provision, at present, in respect of other DPOs on other addressable platforms namely DTH, HITS and IPTV. DTH and HITS technologies utilise satellite transponders for re-transmission of signals of TV channels. Due to limited availability of satellite transponder capacity for these platforms, re-transmission capacity of these platforms is restricted. In DAS, capacity of carrying channels is not constrained at present.

3.23 Over the past few years, DTH and HITS have together cornered approximately one third of the market share of pay cable and satellite TV consumers. Today, no broadcaster can reach out to all potential viewers without distributing its TV signal through these platforms. A possible view could be that mitigation of the entry barrier to new broadcasters seeking access to DTH and HITS as distribution platforms is possible if the 'must carry' principle is also applied to DTH and HITS platforms,. Even with the existing transponder capacity constraints, creation of waiting lists by distribution platform operators can be a non-discriminatory method to provide the broadcasters an access to these platforms, on a 'first come first serve' basis subject to payment of non-discriminatory carriage fees. However, to ensure that not very popular content does not end up exhausting the available transponder capacity, a provision may be made giving the freedom to DTH and HITS operators to discontinue carrying a channel if the subscription to that particular channel, in the preceding six months is less than or equal to a given minimum percentage (*in DAS it is 5%*) of the total active subscriber base of that operator averaged over that period. Another view could be that till the time issues relating to transponder capacity constraints are adequately addressed, the 'must carry' provision may not be made binding on DTH and HITS operators. However, the same can still be made applicable on IPTV platforms as in this case there may not be similar capacity constraints.

3.24 Another important aspect of ensuring non-discrimination is to be able to know all the commercial aspects such as fees or charges flowing between the provider and seeker. This will enable to check from the interconnection agreement that the provider is treating all the seekers in an unbiased manner. Permitting supplementary agreements for various charges results in arbitrage and prone to discriminatory pricing.

Subscription fee, carriage fee are the main commercial aspects on which the seeker and provider comes to an agreement. However, in several cases in the name of placement fee, marketing fee or discount, arbitration is made by the service provider results in variation in the net fees even among similarly placed service provider. One way of addressing these issues could be by mandating service providers to declare all its fees / charges in the interconnection agreement. The service provider is required to declare that no other transaction is made for the service.

3.25 Apropos the above, the issues for consultation are:-

- a) Is there any need to allow agreements based on mutually agreed terms, which do not form part of RIO, in digital addressable systems where calculation of fee can be based on subscription numbers? If yes, then kindly justify with probable scenarios for such a requirement.**
- b) How to ensure that the interconnection agreements entered on mutually agreed terms meet the requirement of providing a level playing field amongst service providers?**
- c) What are the ways for effectively implementing non-discrimination on ground? Why confidentiality of interconnection agreements a necessity? Kindly justify the comments with detailed reasons.**
- d) Should the terms and conditions (including rates) of mutual agreement be disclosed to other service providers to ensure the non-discrimination?**
- e) Whether the principles of non-exclusivity, must-provide, and must-carry are necessary for orderly growth of the sector? What else needs to be done to ensure that subscribers get their choice of channels at competitive prices?**

- f) Should the RIO contain all the terms and conditions including rates and discounts, if any, offered by provider, for each and every alternative? If no, then how to ensure non-discrimination and level playing field? Kindly provide details and justify.**
- g) Should RIO be the only basis for signing of agreement? If no, then how to make agreements comparable and ensure non-discrimination?**
- h) Whether SIA is required to be published by provider so that in cases where service providers are unable to decide on mutually agreed terms, a SIA may be signed?**
- i) Should a format be prescribed for applications seeking signals of TV channels and seeking access to platform for re-transmission of TV channels along with list of documents required to be enclosed prior to signing of SIA be prescribed? If yes, what are the minimum fields required for such application formats in each case? What could be the list of documents in each case?**
- j) Should 'must carry' provision be made applicable for DTH, IPTV and HITS platforms also?**
- k) If yes, should there be a provision to discontinue a channel by DPO if the subscription falls below certain percentage of overall subscription of that DPO. What should be the percentage?**
- l) Should there be reasonable restrictions on 'must carry' provision for DTH and HITS platforms in view of limited satellite bandwidth? If yes, whether it should be similar to that provided in existing regulations for DAS or different. If different, then kindly provide the details along with justification.**
- m) In order to provide more transparency to the framework, should there be a mandate that all commercial dealings should be reflected in an interconnection agreement prohibiting separate agreements**

on key commercial dealing viz. subscription, carriage, placement, marketing and all its cognate expressions?

EXAMINATION OF RIO

- 3.26 The existing regulatory framework casts an obligation on the service providers to file with the Authority copy of RIO, describing the technical and commercial conditions for interconnection. A service provider is also required to publish the RIO on its website after its submission to the Authority. Mandating that a service provider upload the RIO on its website is done so as to ensure that there is transparency, non-discrimination and a level playing field in the interconnection between the service providers. This framework provides for equal opportunity amongst all the seekers of TV channels and also in the access to platforms by providing for equal knowledge of the terms and conditions and rates offered by every provider for interconnection.
- 3.27 For the interconnection between a broadcaster and DPO, the regulatory framework prescribes some of the terms and conditions which should compulsorily form a part of RIO for interconnection in respect of addressable systems. Accordingly, the terms and conditions of the RIO can be devised by a service provider on its own on the basis of the already prescribed regulatory framework. In no case should the provisions of the regulatory framework notified by the Authority be in contravention by the terms and conditions of the service provider.
- 3.28 Some service providers argue that since the RIO has been filed with the TRAI and the Authority has not raised any objection relating to its terms and conditions, the published RIO is presumed to be in compliance with the regulatory framework. It is mistaken. On the contrary, the responsibility of ensuring compliance of the terms and conditions of the

published RIO with the applicable regulatory framework lies with the provider publishing the RIO. Any provision in the RIO which is contrary to the regulatory framework is against the law and therefore it may attract an action against the provider as per TRAI Act. In fact, filing of RIO with TRAI is only to ensure that should there be an issue at a future date, a reference document is available with the regulator for further scrutiny. Decision regarding examination of any RIO in a particular context is taken on case-to-case basis.

3.29 If any stakeholder feels that the terms and conditions of an RIO contravene the provisions of the regulatory framework then that stakeholder is at liberty to raise his objection with the provider publishing the RIO or at an appropriate forum. On many occasions it has been observed that such objections are often raised a long time from the date of publication of RIO. This results in delay in initiation of corrective action, if any, by the provider. Further, an amendment to the RIO at a belated stage may necessitate amendments in agreements with multiple providers already executed on the basis of that RIO.

3.30 To mitigate this problem one option could be that all service providers publish on their websites draft RIOs containing all their technical and commercial terms and conditions for interconnection. The publication of the draft RIO on the website may be intimated to all the existing interconnecting seekers after its publication on the website through e-mail IDs and/or through press releases for wider coverage. A time period, say 1 month, may be provided to the stakeholders for raising objections if any on the published draft RIO. A stakeholder may specifically bring out that clause of the RIO which is not in consonance with a specific regulatory provision. An objection, after elapse of the specified time period for raising objection, may then be entertained by the provider. The provider may publish the final RIO on its website after initiating

corrective actions, if any, to align its RIO to be in accordance with the existing regulatory framework. This may help in reducing the instances of disputes between the service providers and will lead to publication of just and fair terms and conditions of the RIO.

3.31 Another view could be that the freedom to raise objections on the RIO published by the provider should not be bounded by any time frame in the interest of justice.

3.32 Apropos the above, the issues for consultation are:-

- a) **How can it be ensured that published RIO by the providers fully complies with the regulatory framework applicable at that time? What deterrents do you suggest to reduce non compliance?**
- b) **Should the regulatory framework prescribe a time period during which any stakeholders may be permitted to raise objections on the terms and conditions of the draft RIO published by the provider?**
- c) **If yes, what period should be considered as appropriate for raising objections?**

TIME LIMIT FOR PROVIDING SIGNALS OF TV CHANNELS / ACCESS TO THE PLATFORM

3.33 As per the existing regulatory frame work for interconnection, a service provider should either provide the signals in a reasonable time period but not exceeding 60 days from the date of the request. It has also been provided that in case, the service provider turns down the request for providing TV channel signals, the reasons for such a refusal must be recorded in writing and conveyed to the distributor within 60 days from the date of the request. Time bound interconnection between services providers may facilitate non-discriminatory provisioning of services.

- 3.34 On similar lines, a time period of 60 days has been provided to an MSO providing cable TV services through DAS for providing access to its platform to a broadcaster for carriage of TV channel(s).
- 3.35 However, there are complaints that even though providers (broadcasters/ DPOs) do respond within the stipulated time, the negotiations are needlessly prolonged defeating the very purpose of the regulations. On many occasions, the initial response given to the seeker by the provider is itself at the end of permitted time limit to seek further details or to commence negotiations for signing of a mutual agreement. In many cases, due to prolonged negotiations to arrive at a mutual agreement, time period of 60 days may not be adhered to by either party. In some cases, on reminder or enquiry about delay in provisioning, the response of the provider was that the request itself was not received from the seeker. All these issues delay the process of interconnection; and in a way promote discrimination and this may tilt the balance of negotiations towards provider. Delays in signing of agreements sometimes also cause inconvenience to the consumers as interruption in the distribution of certain TV channels causes disruptions at the consumer end for that duration. These interruptions in TV services thus give rise to numerous disputes amongst service providers and also lead to a large number of consumer complaints.
- 3.36 To address these issues, one view could be that the already prescribed time period of 60 days may be further sub-divided into three sub-periods – (a) 15 days from date of receipt of request for initial consent to provide signal/ access, (b) next 15 days for signing of commercial agreement subject to verification of technical systems and parameters as per prescribed regulatory framework and (c) final 30 days for provisioning of signal which include verification/ audit of technical systems and

parameters, and deployment of Integrated Receivers and Decoders (IRDs). The initial consent for providing signal/ access to the seeker within 15 days from the date of request may also work as an acknowledgement of a receipt of request and address the issues relating to uncertainty of getting signal/ access. Signing of agreement would conclude the next step of agreeing on commercial terms. Another view could be that any further sub-division of the already prescribed time period may render the process more difficult. For addressing the issues as mentioned earlier, enforcement may be further strengthened with the help of Information and Communications Technologies (ICT) applications and imposition of financial disincentives on defaulting service providers as deterrent.

- 3.37 Further, it is necessary that every service provider in the value chain follows the prescribed time limits. Towards achieving this objective, it is essential that negotiations for signing of mutual agreement and technical audits are completed within the prescribed time limits. In the past, it has been observed that, in some cases, mutual negotiations between the parties continue for indefinite periods and technical audits are not completed within the prescribed time limits. The time period for completing the negotiations may be shortened drastically if commercial parameters for such negotiation are objectively spelt out in the RIO itself. In addition to this, in case of a failure to sign mutual agreement by service providers, the seeker may sign the SIA and send it to the provider for signing and making available a copy of that to the seeker.
- 3.38 Similarly, responsibility needs to be fixed for any delays in the technical audits. The option of audit is vested with the broadcaster in the present regulatory framework. It may or may not choose to carry out a technical audit of the distributor's systems. In that case, one view could be that, the onus of completing audit within the prescribed time limit may also lie with the broadcaster only. However, if the distributor does not cooperate

with the broadcaster in carrying out the technical audit and delay results due to that, then in such cases the broadcaster may record the facts in writing and convey the same to the distributor so that the broadcaster may not be held responsible for such delay. In such cases, the onus of proving that the delay in completing the technical audit was due to non-cooperation of the distributor may lie on the broadcaster. Other view could be that the reasons for delay in each individual case may vary and responsibility for delay can only be fixed after ascertaining the facts in each case. It may require examination of the evidence. Therefore it may be left for resolution by an appropriate forum.

3.39 Apropos the above, the issues for consultation are:-

- a) Should the period of 60 days already prescribed to provide the signals may be further sub divided into sub-periods as discussed in consultation paper? Kindly provide your comments with details.**
- b) What measures need to be prescribed in the regulations to ensure that each service provider honour the time limits prescribed for signing of mutual agreement? Whether imposition of financial disincentives could be an effective deterrent? If yes, then what should be the basis and amount for such financial disincentive?**
- c) Should the SIA be mandated as fall back option?**
- d) Should onus of completing technical audit within the prescribed time limit lie with broadcaster? If no, then kindly suggest alternative ways to ensure timely completion of the audit so that interconnection does not get delayed.**
- e) Whether onus of fixing the responsibility for delay in individual cases may be left to an appropriate dispute resolution forum?**

REASONS FOR DENIAL OF SIGNALS / ACCESS TO THE PLATFORM

- 3.40 The existing regulatory framework, inter-alia, provides the following:-
- 3.40.1 The signals of TV channels or access to the platform should be provided within 60 days from the date of receipt of request for the same and in case the request is not agreed to, the reasons for such refusal shall be conveyed to the person making the request within sixty days from the date of request.
 - 3.40.2 The broadcaster/ DPO can deny signals/ access to the platform respectively to the seeker if the seeker is in default of payment.
 - 3.40.3 The broadcaster can deny provisioning of signals if the distributor demands carriage fee at the time of seeking the channels under the 'must provide' clause.
 - 3.40.4 Imposition of any term by broadcaster/DPO which is unreasonable is construed as a denial of request. If a broadcaster insist on a DPO for placement of its channel in a particular slot as a pre-condition for providing signals, such pre-condition amounts to imposition of unreasonable terms.
- 3.41 To enhance transparency and to minimise discretion, one view could be that the Authority should make an exhaustive list of all possible reasons which may result in denial of TV channel signals by a broadcaster or a DPO. This may help the seeker to check whether they fulfil all the conditions or not at the time of making a request for the signal. With this, instances of refusal can be substantially reduced. The other view could be that the broadcaster/ DPO be given the freedom to specify the list of reasons that may lead to denial of the signal in its published RIO. The counter view could be that it would be difficult to provide all possible reasons for denial in advance and the exact reasons would vary on a case-to-case basis.

3.42 Apropos the above, the issues for consultation are:-

- a) **What are the parameters that could be treated as the basis for denial of the signals/ platform?**
- b) **Should it be made mandatory for service providers to provide an exhaustive list in the RIO which will be the basis for denial of signals of TV channels/ access of the platform to the seeker.**

INTERCONNECTION MANAGEMENT SYSTEM (IMS):

3.43 In broadcasting and cable services sector, there are a large number of service providers at every level in the value chain. Presently, more than 50 pay TV broadcasters; around 700 MSOs, 6 DTH operators and 2 HITS operators are providing services through addressable systems. The presence of IPTV operators is limited. In addition to these, a large number of LCOs need to sign interconnect agreements with either an MSO or a HITS operator. Almost every DPO distributes TV signals of every pay TV broadcaster. Therefore the numbers of interconnection agreements to be signed on periodic basis are very large and this poses immense challenges in logistics and monitoring. Any delay in signing of a new agreement before expiry of the existing agreement may result in unintended violation of the regulatory framework. It may also lead to increased inefficiencies and additional cost burden on the service providers.

3.44 With development in the Information and Communication Technology (ICT) sector, these challenges can be effectively addressed to a large extent. To facilitate signing of the interconnection agreement between service providers, ICT can be harnessed to help reduce the communication time between the service providers and also facilitate faster execution of interconnection agreements. This may also help

improve compliance with the regulatory framework for interconnection in the broadcasting and cable services sector.

- 3.45 To meet the aforementioned objectives, an online Interconnect Management System (IMS) can be developed and put in place. IMS can facilitate- (a) publishing of RIOs at central place, (b) placement of interconnection requests along with the requisite documents, (c) ensure acknowledgement of the request, initial consent by provider for providing signal/ access, (d) mutual negotiations to arrive at agreement, (e) signing of commercial agreement, (f) maintaining prescribed data relating to interconnection terms in the database, (g) preserving copy of the executed agreement, (h) exchange of communications for various other purposes relating to interconnection, renewal or extension of agreements, notice for disconnection, (j) revenue settlement between service providers and (k) making available details of interconnection agreements to the Authority etc.
- 3.46 The IMS may not only ensure equal opportunities to all service providers but also help in reducing complaints relating to interconnection agreements. This may also reduce entry barriers for new service providers and can be a milestone in fulfilling the objective for ease of doing business. The Authority can also examine, from time-to -time, details of the filed interconnection agreements to get an insight into the terms and conditions of interconnection agreements entered between the service providers and assessing the financials in the sector. Since the IMS may become a vital backbone in the broadcasting and cable services sector, its security and proper functioning in line with the regulatory framework for interconnection becomes necessary.
- 3.47 Development of IMS by individual service providers may not be prudent as it would require development of thousand of such systems; it may

increase the complexities and leads to development of non-standardised systems. The question that then arises is who should develop an IMS system which can be used by all service providers and ensure its proper functioning. It could be either an industry led body which operates as per the guidelines prescribed by the regulator or a private entity willing to offer such services in lieu of fee for each interconnection request, or any other option as suggested by the stakeholders.

3.48 Apropos the above, the issues for consultation are:-

- a) Should an IMS be developed and put in place for improving efficiencies and ease of doing business?**
- b) If yes, should signing of interconnection agreements through IMS be made mandatory for all service providers?**
- c) If yes, who should develop, operate and maintain the IMS? How that agency may be finalised and what should be the business model?**
- d) What functions can be performed by IMS in your view? How would it improve the functioning of the industry?**
- e) What should be the business model for the agency providing IMS services for being self supporting?**

TERRITORY OF INTERCONNECTION AGREEMENT

3.49 DTH and HITS operator can have pan-India operations, whereas MSOs and IPTV operators may either have pan India operations or remain restricted to a particular territory depending upon the registration conditions and the business case of that service provider. Normally, the interconnection agreements between two service providers, say between a broadcaster and an MSO, should cover the entire territory of operations permitted in the registration. This may facilitate unhindered growth and

competition in the market. Earlier, due to non-addressability and localised registration of cable operators, perhaps territory specific agreements were in place. For each new territory, the specific assessment of number of subscribers was required to be carried out based on a ground survey before entering into interconnection agreement for that territory. These requirements no more exist after the emergence of addressable systems. However, continuing with legacy practices, the service providers still continue to enter into an interconnection agreement for a particular territory and for every new territory, a new interconnection agreement is signed. This legacy business practice not only causes delay in signing of interconnection agreements for new territories but also hampers ease of doing business.

- 3.50 In addressable systems, the primary parameter which has a direct bearing on a broadcaster's revenue is the number of subscribers availing its channel and this number can be ascertained from the subscriber management system (SMS) of distributor. One view could be that the agreements should have no mention of the territory and it should be directly linked with number of subscribers catered in the registered area of operation of the MSO. Another view could be that the broadcaster should know the details of territories where its signal would be distributed in advance so that checks, if any, can be carried out to protect its interests. To address this concern, the MSO may send a written communication to the broadcaster enclosing details of its territories before re-transmission of signals to the subscribers. Counter view could be that since the SMS of addressable systems contains all details of the subscribers, locality etc, there is no need to inform the broadcasters about the territory where signals of TV channels are being re-transmitted, provided that the territory falls within the permitted area in the MSO's registration. In case of DTH and HITS also, the distributor

does not inform the broadcaster about any particular territory before distributing its signal.

3.51 Apropos the above, the issues for consultation are:-

- a) **Whether only one interconnection agreement is adequate for the complete territory of operations permitted in the registration of MSO/ IPTV operator?**
- b) **Should MSOs be allowed to expand the territory within the area of operations as permitted in its registration issued by MIB without any advance intimation to the broadcasters?**
- c) **If no, then should it be made mandatory for MSO to notify the broadcaster about the details of new territories where it wants to start distribution of signal a fresh in advance? What could be the period for such advance notification?**

PERIOD OF AGREEMENTS

3.52 It has been noted that in many cases the period of interconnection agreement entered into by broadcasters with DTH operators varies from three to seven years whereas in case of MSOs the period is generally one year. It is argued that, normally the period of interconnection agreements should be long enough so that it provides clarity of business to either party for foreseeable future and reduces burden of renewing it too frequently. At the same time it should not be too long as it may reduce flexibility and hamper innovation.

3.53 To ensure, continuity of business and uninterrupted services to consumers, a new interconnection agreement must be signed before expiry of the existing agreement. Non-signing a agreement before expiry

of the existing one often leads to sudden disconnections, disputes and allegations of unauthorized transmission.

3.54 The validity period of DTH, HITS, and MSOs' licenses/ registrations are for ten years. To avoid the frequent signing of the agreements and reduce disputes, one view could be that a minimum term of the agreement must be prescribed. In any case, the agreement could be terminated by either party, after following due process provided in the agreement, before the expiry term of the agreement. Counter view could be that the term of the agreement should be left to the discretion of the concerned parties.

3.55 Apropos the above, the issue for consultation is:-

- a) Whether a minimum term for an interconnection agreement be prescribed in the regulations? If so, what it should be and why?**

CONVERSION FROM FTA TO PAY CHANNELS

3.56 As per the existing regulatory framework, it is mandatory for a pay channel broadcaster to enter into a written interconnection agreement before providing signals of pay TV channels to the DPOs. However, for FTA channels, the written interconnection agreements are not required as the signals are freely available. A channel could be pay or FTA depending upon the choice of broadcaster. Before conversion of a FTA channel into a pay channel, the broadcaster is required to enter into interconnection agreement for that converted channel with DPOs. Therefore, before any conversion from FTA to pay, notice with sufficient time may be required.

3.57 Apropos the above, the issues for the consultation are:-

- a) **Whether it should be made mandatory for all the broadcasters to provide prior notice to the DPOs before converting an FTA channel to pay channel?**
- b) **If so, what should be the period for prior notice?**

MINIMUM SUBSCRIBERS GUARANTEE

3.58 In a competitive market, insistence upon any kind of minimum guarantee by either party is considered as an entry barrier. For addressable systems, the existing regulatory framework prohibits any kind of minimum subscriber guarantee. From time-to-time, it has been observed that even though the broadcasters do not propose or insist for minimum subscription guarantee in their RIOs directly, instances have come to notice where the penetration/ volume linked discounts are offered by the broadcasters to the distributors. Many times it is argued that if such discounts are reasonable, then these discounts may not disturb the level playing field and may not be construed as minimum guarantee. Such discounts may be good for the growth of the sector as these may encourage distributors towards better packaging/ marketing of channels. However, if such discounts are unreasonable, then these discounts not only upset the level playing field but also, indirectly, act as a minimum guarantee. In such cases, to remain competitive in the market, distributors may have no other option but to avail such discounts and then package these channels in manner such that customers have no viable option but to accept the same. This constrains the freedom of subscribers to choose channels.

3.59 In many cases, irrespective of the number of actual subscribers to a given channel, parties to the agreement agree to pay a fixed amount of subscription fee for a particular period. In some cases, it is semi-variable in nature i.e. up to certain number of subscribers, a fixed amount of

subscription fee is paid by distributor and beyond that the subscription fee is calculated on a per-subscriber basis. Such arrangements may turn out to be good for business if they are based on past trends or realistic estimates as these provide visibility of revenue to the broadcasters and flexibility of packaging/ marketing to the distributors. However, there is a thin distinguishing line between subscription based fixed fee deals and minimum guarantees. Probability of misuse of such provisions is very high. If these deals are in the nature of minimum guarantee then these may be objectionable and against the existing regulatory framework. This may result in pushing of certain channels to subscribers in form of bundles which the subscriber may not wish to subscribe. Whether these are mutually agreed or insisted by a party is difficult to ascertain as the circumstances may vary from case- to-case.

- 3.60 To address these issues, one view could be that service providers must be mandated that the commercial settlement be linked only with the 'number of subscribers availing the channel' and there should not be any other condition such as prescribing any minimum guaranteed number of subscribers or any fixed amount as a subscription fee. The argument in favour of such a dispensation is that, in addressable systems the number of subscribers to a channel is auditable and verifiable, and therefore it improves transparency and makes deals comparable.
- 3.61 The counter-view could be that though the insistence upon a minimum subscriber guarantee is against the spirit of regulatory framework and may not be good for the sector but flexibility in deals is necessary to accommodate various business scenarios. Therefore, within the regulatory framework, reasonable level of discounts, fixed fee deals, semi-variable deals may be allowed.
- 3.62 Apropos the above, the issues for consultation are:-

- a) **Should the number of subscribers availing a channel be the only parameter for calculation of subscription fee?**
- b) **If no, what could be the other parameter for calculating subscription fee?**
- c) **What kind of checks should be introduced in the regulations so that discounts and other variables cannot be used indirectly for minimum subscribers guarantee?**

MINIMUM TECHNICAL SPECIFICATIONS

3.63 The existing regulatory framework prescribes minimum technical specifications for addressable systems in respect of SMS, CAS, fingerprinting & STBs etc. The addressable systems of DPOs shall meet the minimum requirements as prescribed, in order to get signals of TV channels from broadcasters for re-transmission to subscribers. These minimum technical specifications were first time introduced in the year 2009 for addressable systems and these were further updated in the year 2012 in respect of cable TV services provided through DAS. These technical specifications primarily ensure the addressability and transparency, and help in preventing piracy. With the progress of time and evolution of technology, these minimum technical specifications may also require updation.

3.64 Further, to ensure that good quality STBs are deployed in the distribution network, TRAI has mandated that STBs must be compliant to latest Bureau of Indian Standards (BIS) specifications notified in this regard.

3.65 Many times, before providing signals of TV channels, to prevent piracy, broadcasters specify additional technical requirements to DPOs. Since broadcasters and distributors work in many to many relationships, so it

would not be practically possible for distributors to meet technical requirements specified by each broadcaster separately. Therefore, common minimum technical specifications for all addressable systems need to be standardised. After notification of these common minimum technical specifications, no broadcaster may insist for any additional technical requirements. If a need arise for update of technical specifications due to specific developments in future, then in such scenario, the regulator may be approached by individual stakeholder with full justification for update of technical specifications. Addressable platform meeting these minimum requirements may be provided signals of TV channels without any further ado.

3.66 Sometimes, just like quality of STB, stakeholders raise the concerns regarding quality of CAS and SMS also. Quite often, it is argued that the activation - deactivation data relating to subscribers/ channels obtained independently from CAS and SMS of same DPO does not tally. It may be due to absence of tight integration between CAS and SMS. For improving transparency in the system, it may not only be necessary that CAS and SMS meets certain minimum technical specifications but also these systems are commissioned in such a way that their remains no scope for manoeuvring of data. Just like STBs, these systems may also require to be certified by labs of international repute and obtain type approval certificate from specified agency before deployment in the network. Requirement for type approval of CAS may further strengthen anti-piracy measures and help in reducing the time for provisioning of signals to DPOs also. In case of any wrong doing, in addition to the concerned DPO, action may be initiated by specified agency against the SMS and CAS vendors.

3.67 A propos the above, the issues for consultation are:-

- a) **Whether the technical specifications indicated in the existing regulations of 2012 are adequate?**
- b) **If no, then what updates/ changes should be made in the existing technical specifications mentioned in the schedule I of the Interconnection Regulations, 2012?**
- c) **Should SMS and CAS also be type approved before deployment in the network? If yes, then which agency may be mandated to issue test certificates for SMS and CAS?**
- d) **Whether, in case of any wrong doing by CAS or SMS vendor, action for blacklisting may be initiated by specified agency against the concerned SMS or CAS vendor.**

TECHNICAL AUDIT OF ADDRESSABLE SYSTEMS

3.68 To avoid any dispute as to whether an addressable system fully complies with the notified technical specifications, a broadcaster can conduct technical audit before providing its TV channel signal. The existing regulatory framework provides that in case, in the opinion of the broadcaster, the system does not meet the requirement as specified then the DPO must get the system audited and if necessary, get certification from BECIL or by an agency as may be notified by the Authority from time-to-time. The regulatory framework also provides that the broadcasters can conduct technical audit of the system during the currency of contract at a frequency which shall not exceed twice a year. The audit methodology has been prescribed in the regulations.

3.69 As of now more than 700 MSOs are registered for providing cable TV services through DAS. Many MSOs have raised the issue regarding delay in completion of audit by BECIL. It may result in delays in getting signal from broadcasters and this may affect their business severely. To address this problem, one possible way could be that more than one auditor are

empanelled by TRAI so that delays can be minimised. Another way could be that the systems of a given make, model, and version, which have already been audited in some other network and were found to be compliant with the laid down specifications, need not be audited again before providing the signal. Further, one more option could be that type approved SMS and CAS systems may not be audited before providing the signal. In each case, the broadcasters can conduct technical audit of such systems during the currency of contract at the specified frequency.

3.70 Many times, broadcasters complain that DPOs do not provide timely access to their systems for technical audit. Meanwhile, DPOs complain that multiple technical audits of their systems by multiple broadcasters results into multiplicity of task and increased workload. Further, they also complain about lack of experience and technical knowhow of the auditors. Even if each of pay broadcasters carry out two audits of an addressable system platform in a given calendar year then that same system may end up getting audited more than 100 times against the same parameters. This will not only result in infructuous repeated expenditure but also imposes a heavy financial burden on the limited resources of the broadcaster and distributor. It may also throw up conflicting reports and resolution of these may take time. Therefore existing provisions in this regard may require revision. One way could be that all pay broadcasters decide on a panel of auditors, who have the requisite skill, experience and technical knowhow to carry out the audit. Any one of those, as chosen by a DPO, can now carry out the audit and render a report with the results of the audit being shared with all the concerned stakeholders.. This will not only save the time and cut down on the multiplicity of efforts but also may reduce the number of disputes.

3.71 Some stakeholders have expressed the apprehension that in order to hide the actual subscriber figures a DPO may install more than one subscriber management system. One system may be used for reporting purpose while another may be used for distribution of signals in the network. In such cases, the subscriber management systems may not be tightly integrated with CAS. Such practices may end up defeating the very purpose of addressability and adversely affect transparency. To address such apprehensions many measures like preservation of logs of SMS and CAS, fingerprinting, etc. have already been introduced into the existing technical specifications. These measures may need to be further strengthened in consultation with the stakeholders and further lead to instituting punitive and stringent actions on erring DPOs like suspension or revocation of DPO license/ registration, blacklisting of concerned SMS and CAS vendors etc. Such measures may work as an effective deterrent.

3.72 Apropos the above, the issues for consultation are:-

- a) **Whether the type approved CAS and SMS be exempted from the requirement of audit before provisioning of signal?**
- b) **Whether the systems having the same make, model, and version, that have already been audited in some other network and found to be compliant with the laid down specifications, need not be audited again before providing the signal?**
- c) **If no, then what should be the methodology to ensure that the distribution network of a DPO satisfies the minimum specified conditions for addressable systems while ensuring provisioning of signals does not get delayed?**
- d) **Whether the technical audit methodology prescribed in the regulations needs a review? If yes, kindly suggest alternate methodology.**

- e) **Whether a panel of auditors on behalf of all broadcasters be mandated or enabled? What could be the mechanism?**
- f) **Should stringent actions like suspension or revocation of DPO license/ registration, blacklisting of concerned SMS and CAS vendors etc. be specified for manipulating subscription reports? Will these be effective deterrent? What could be the other measures to curb such practices?**

SUBSCRIPTION DETAILS

- 3.73 In addressable systems the number of subscribers of a channel or a bouquet of channels is auditable and verifiable. The existing regulations mandate that the DPO will maintain at its own expense an SMS which should be fully integrated with the CAS. The framework also provides that the DPO shall provide to the concerned broadcaster, complete and accurate opening, closing and average number of subscribers for each month for the broadcaster's channels and the bouquet or package containing the broadcaster's channels within 7 days from the end of each month in a format provided by the broadcaster. The regulatory framework further stipulates that such reports shall specify all information required to calculate the monthly average subscriber level and the subscription fee payable to the broadcaster and shall be signed and attested by an officer of the DPO of a rank not less than head of the department/ chief financial officer who shall certify that all information in the report is true and correct.
- 3.74 Presently, broadcaster can carry out audit not more than twice in a calendar year to review the SMS, CAS, related systems and also the SMS records relating to channels provided by a broadcaster for the purpose of verification of amounts payable by DPO to the broadcaster under the agreement and also the information contained in the subscriber reports.

3.75 On many occasions, a DPO might not provide the subscription report to broadcaster, in time, in spite of repeated reminders. Broadcasters also raise the issue of correctness of the rendered subscription figures. There have been allegations that on many occasions, the SMS and CAS data do not tally. Meanwhile DPOs complain that broadcasters do not have a common format for seeking the report and it becomes practically difficult for them to generate customized reports each time for individual broadcaster. This puts an unnecessary repetitive burden on their systems and resources. DPOs also object to a broadcaster seeking unnecessary information like details of a bouquet that may not even contain any channel of that particular broadcaster. This unrelated and unnecessary information sought in the name of subscriber's reports is a major bone of contention. DPOs have demanded that the regulator finalise a format and the list of the common parameters that may be insisted for inclusion in subscription reports.

3.76 Broadcasters have many a times expressed the apprehension that the subscription report may not include those subscribers who are active for less than 30 or 31 days, as the case may be, in a calendar month. This can put them at a commercially disadvantageous position. Further, as per broadcasters, the present methodology of calculating average subscription figure for a month is susceptible to manipulation as only those subscription figures as on the last day of the month are used for calculation of the average monthly subscription numbers. Broadcasters argue that, in electronic systems, average monthly subscription numbers could easily be arrived by taking into account the daily subscription figures. The time of capturing daily subscription figures could be either prime time say 8.00 PM instead of midnight i.e. 00.00 AM or the highest subscriber number during the day. However, the time for highest subscriber number may vary from channel to channel and bouquet to

bouquet. This may make the calculation system more complicated and disadvantages of such a complicated system may far outweigh the advantages.

3.77 Many times, similar to technical audit as discussed above, broadcasters complain that DPOs do not provide access to their systems for subscription audit in a timely manner. As per them, verification of subscription reports made available by DPO is necessary to securely ascertain the correct revenue amounts. Meanwhile DPOs complain that subscription audit of their systems by individual broadcaster results into multiplicity of effort. Further DPOs also claim that in the name of subscription audit, sometimes, broadcasters try to collect additional unrelated information which may not be relevant for subscription verification.

3.78 Issues relating to timely availability of correct subscriber reports need to be addressed as it is fundamental to ensuring cash flow in the value chain, and orderly growth of the sector. One view could be that each DPO bring out a common monthly subscription report, in the manner, format and time finalised, to all pay TV broadcasters before a specified date and the same can be used by all broadcasters for billing purpose. Any delay in bringing out subscription report may affect the billing cycle and cash flow of the broadcasters. Therefore, for ensuring the timely availability of the report, service providers may agree upon a certain compensation, which may be linked to billing amount and recorded in writing in their agreements. Similarly, for ensuring the correctness of subscription reports in the beginning itself it may be necessary to mandate that any difference between the reported figures and audited figures will lead to serious financial repercussions in the form of penalties. Other view could be that systems of DPOs may be integrated with an independent reporting system, which is managed by a neutral third party. Against

certain consideration, that third party system may be used to generate the subscription reports for all stakeholders.

3.79 Similar to technical audit, this audit by individual broadcaster may lead to inefficiencies in the system. One way could be all pay broadcasters decide on a panel of auditors, having sufficient experience and technical knowhow. Any one out of these empanelled auditors, as chosen by a DPO, may audit the addressable system on their behalf and share the audit results in a time bound manner with the stakeholders. Depending upon the result i.e. whether or not the audit report indicates variance beyond a certain percentage from the subscription reports rendered by DPO, the payment for audit fee can either be made by DPO or broadcasters demanding audit. This will not only save time and efforts but may also minimise the number of disputes.

3.80 Apropos the above, the issues for consultation are:-

- a) Should a common format for subscription report be specified in the regulations? If yes, what should be the parameters? Kindly suggest the format also.**
- b) What should be the method of calculation of subscription numbers for each channel/ bouquet? Should subscription numbers for the day be captured at a given time on daily basis?**
- c) Whether the subscription audit methodology prescribed in the regulations needs a review?**
- d) Whether a common auditor on behalf of all broadcasters be mandated or enabled? What could be the mechanism?**
- e) What could be the compensation mechanism for delay in making available subscription figures?**
- f) What could the penal mechanism for difference be in audited and reported subscription figures?**

- g) Should a neutral third party system be evolved for generating subscription reports? Who should manage such system?**
- h) Should the responsibility for payment of audit fee be made dependent upon the outcome of audit results?**

DISCONNECTION OF SIGNALS OF TV CHANNELS

3.81 The interconnection regulations mandate the process to be followed by service providers before disconnection of signals of TV channels. It has been provided that no service provider shall disconnect the signals of TV channels of the other service provider without giving a three weeks prior notice to such service provider clearly specifying the reasons for the proposed disconnection. However, in the terms and conditions, which should compulsorily form part of the RIO for interconnection between broadcasters and DPO, one of the conditions stipulates that a time period of 14 business days shall be given to the DPO by the broadcaster for resolution of issues relating to piracy and if an acceptable solution is not reached between the parties then the condition authorizes the broadcaster, on its sole discretion, to suspend DPO's right to distribute the channel. Under the termination clause of the same terms and conditions it has been provided that the broadcaster has right to terminate the agreement by a written notice to a DPO if the DPO breaches any of the piracy requirement and fails to cure such breach within 10 days of being required in writing to do so by the broadcaster. Further, the regulatory framework provides for giving a 90 days prior notice to the other party for terminating the agreement in the event any party discontinuing its business of providing broadcasting TV services in the territory.

3.82 Disconnection of signals can be attributed to many reasons. The signals can be disconnected due to default in payment, delay in payment, non-compliance with the terms and condition of interconnection agreement,

non-compliance with the existing regulatory framework, expiry of the term of interconnection agreement, early termination of the agreement, expiry/ revocation of valid registration or license, piracy issues or discontinuation of business.

3.83 One view could be that prescription of different time frame for disconnection of signals of TV channels on account of different reasons often leads of confusion and disputes between the service providers. The suspension of the signals is also a type of disconnection of signals where signals are not available for a definite or indefinite period of time. In such a scenario, there is a need for a holistic review of the time periods as prescribed in the regulatory framework for disconnection of TV channels on account of various different reasons. The other view could be that there should be different time frames for disconnection of signals on account of different reasons to protect the interest of service providers.

3.84 Apropos the above, the issues for consultation are:-

- a) **Whether there should be only one notice period for the notice to be given to a service provider prior to disconnection of signals?**
- b) **If yes, what should be the notice period?**
- c) **If not, what should be the time frame for disconnection of channels on account of different reasons?**

PUBLICATION OF ON SCREEN DISPLAY FOR ISSUE OF NOTICE FOR DISCONNECTION OF TV SIGNALS

3.85 The existing regulatory frame work provide that no broadcaster shall disconnect the TV channel signals without giving a three weeks' notice to the distributor clearly giving the reasons for such a proposed action. Similarly, no DPO shall disconnect the re-transmission of any TV channel without giving a three weeks' notice to a broadcaster clearly

giving the reasons for such a proposed action. It has been provided that a broadcaster/ DPO shall inform the consumers about such dispute to enable them to protect their interests. Accordingly, it has been provided that the notice to disconnect signals shall also be given in two local newspapers out of which at least one notice shall be given in local language in a newspaper which is published in the local language and in case the distributor of TV channels is operating in only one district and in two national newspapers in case the distributor of TV channels is providing services in more than one district. It has also been provided that the broadcaster/DPOs may also inform the consumers through scrolls on the concerned channel(s). However, issue of notice in newspapers shall be compulsory. Similar provisions exist for MSOs and LCOs in case of Cable TV service provided through DAS.

- 3.86 Instances have been reported where broadcasters and/or DPOs displayed full/ partial On Screen Display (OSD), to convey the information to the consumers, regarding disconnection or non-availability of channels due to some reason or the other. In these messages, generally, information relating to discontinuation of channels is displayed. In the garb of public messages one party often put pressures on the other party. This disturbs the consumer's quality of TV viewing. The provision of issuing of such notices in form of scroll is intended to provide the information without disturbing the viewing of the consumers. The regulatory framework provides that broadcaster may display OSD messages on the screen as antipiracy measures and it should be displayed by DPOs without any alteration with regard to the time, location, duration and frequency. It is apparent that the publication of notices by full/ partial OSD tends to severely blocks normal viewing, causes annoyance and affects the quality of viewing of the consumer.

3.87 The service providers quite often argue that the mandatory requirement of publishing disconnection notice in news papers may be done away with. As per them, the newspaper notices go un-noticed both by the consumers or the service providers. Hence, for effective communication the notices may only be given through scrolls. However, the same may not hinder the normal viewing of the consumer. Further many times, it is also argued that the information about disconnection of channel(s) to consumers may be given by distributor only. It may help in reducing uncertainty in mind of consumers and reducing avoidable expenses.

3.88 Apropos the above, the issues for consultation are:-

- a) **Whether the regulation should specifically prohibit, the broadcasters and DPOs from displaying the notice of disconnection, through OSD, in full or on a partial part of the screen?**
- b) **Whether the methodology for issuing notice for disconnection prescribed in the regulations needs a review? If yes, then should notice for disconnection to consumers be issued by distributor only?**
- c) **Whether requirement for publication of notices for disconnection in the news papers may be dropped?**

PROHIBITION OF DPO AS AGENT OF BROADCASTERS

3.89 A broadcaster can appoint an agent for distribution of signal. However such an agent must work in the name and on behalf of the broadcaster. However instances have been noticed wherein a broadcaster appoints an existing cable operator as its exclusive agent for distribution of signal to other MSOs in a particular territory. In that situation, the other MSOs in that territory are forced to negotiate with the agent who also happens to

be their competing cable operator thereby resulting in a conflict of interest situation leading to allegations of anti-competitive practices. In such a scenario, to curb additional competition, the requests of new MSOs seeking signal sometimes do not even reach the broadcaster.

3.90 One view could be that the appointment of any cable operator as an authorized agent/ intermediary should be prohibited to ensure fair competition. The other view could be that the appointment of cable operator as an agent is not discriminatory per se as the regulatory framework already mandates that the intermediary/ agent should act in the name and on behalf of the broadcaster. The issue of conflict of interest should be dealt on case to case basis and for ensuring non-discrimination the Authority may examine the distributor agreement signed between the broadcaster and the cable operator whereby such cable operator has been appointed as an authorized agent.

3.91 Apropos the above, the issues for consultation are:-

- a) **Whether the Regulations should specifically prohibit appointment of a MSO, directly or indirectly, as an agent of a broadcaster for distribution of signal?**
- b) **Whether the Regulations make it mandatory for broadcasters to report their distributor agreements, through which agents are appointed, to the Authority for necessary examination of issue of conflict of interest?**

INTERCONNECTION BETWEEN MSO /HITS/ IPTV OPERATORS AND LCOs

3.92 In DAS and HITS services, the last mile connectivity is mostly provided by LCOs. In terms of licensing guidelines issued by the Government, the LCOs can also provide last mile connectivity for IPTV service providers. Efficient interconnection arrangements between MSO/HITS/IPTV

operator and LCO are vital for delivering services to end consumers. LCOs play a very important role in the value chain for meeting the quality of service norms for the subscribers. LCOs, like any other entity in the value chain, are registered service providers. As per Cable TV Act and rules made there under, LCOs are registered in the head post office of the area of their operation. The fundamental principles of non-exclusivity, must-provide, non-discrimination, written agreement, and time bound provisioning of signals for fostering competition and level playing field applies to interconnection arrangement between MSO/HITS/ IPTV operator and LCO as well so that TV services of good quality at competitive prices can be delivered to the subscribers. Therefore discussions on these issues are equally applicable for this interconnection arrangement also. The following paragraph discusses some additional issues relating to interconnection between MSO/HITS/IPTV operators and LCOs.

INTERCONNECTION BETWEEN HITS/IPTV OPERATOR AND LCO

3.93 In order to provide a level playing field between MSOs and LCOs providing cable TV services through DAS and to ensure the QoS for the subscribers, the Authority has recently introduced a framework of Model Interconnection Agreement (MIA) & Standard Interconnection Agreement (SIA) through the Seventh Amendment to the Interconnection Regulations, 2012. In terms of existing regulatory framework, signals of TV channels are required to be provided to the LCO making a request for the same in a time-bound manner. MSOs and LCOs have been given the freedom to enter into interconnection agreement in lines with MIA through mutual agreement and if they fail to arrive at mutual agreement and decide to continue distribution of TV signals then they have to enter into an interconnection agreement strictly within the terms of SIA where

the roles and responsibilities and revenue share have been prescribed in the regulatory framework.

3.94 In the existing regulatory framework the interconnection arrangements between HITS/IPTV operator and LCO are required to be finalized through mutual agreement. However, the regulatory framework makes it mandatory on part of HITS/IPTV operator to provide signals to the LCOs making a request for the same on non discriminatory terms and to enter into a written interconnection agreement before distributing signal. Presently the scale of operations of HITS/IPTV operators is very small in comparison to MSOs. However, these may grow with time and similar issues in the nature of strained MSO-LCO relationship may crop up in this case also. To address such probable issues in advance, one view could be that the interconnection between HITS/IPTV operator and LCO should also follow a framework similar to that of MIA and SIA as prescribed in DAS. This may help in faster digitization in far flung areas.

3.95 The counter view could be that at this stage, it may be best left to the market forces which may bring in more innovations in the HITS/IPTV services. As and when such issues, if any, are observed, to be emerging, issue based intervention may be required.

3.96 Apropos the above, the issues for consultation are:-

- a) Whether the framework of MIA and SIA as applicable for cable TV services provided through DAS is made applicable for HITS/IPTV services also.**
- b) If yes, what are the changes, if any, that should be incorporated in the existing framework of MIA and SIA.**

- c) If no, what could be other method to ensure non discrimination and level playing field for LCOs seeking interconnection with HITS/IPTV operators?**

TIME PERIOD FOR PROVIDING SIGNALS OF TV CHANNELS

- 3.97 As per the existing regulatory frame work for interconnection, HITS/IPTV operator should provide the signals on mutually agreed terms to a LCO within 60 days from the date of such a request. It has also been provided that in case, HITS/IPTV operator turns down the request for providing TV channel signals, the reasons for such refusal must be recorded in writing and conveyed to the LCO within 60 days from the date of the request.
- 3.98 The Authority has recently introduced an amendment to the Interconnection Regulation, 2012 applicable to DAS which mandates that the MSO should enter into a written interconnection agreement with the LCO within 30 days from the date of receipt of request for the same and the signal should be provided within the next 30 days from the date of signing of the interconnection agreement. To bring in parity and uniformity one view could be that the regulatory prescription in respect of mandated time period for provisioning of signals should be similar to DAS. The other view could be that since in HITS operations, the LCOs are required to install a dish antenna for reception of signals from HITS satellite a 30 days time period for providing signals of TV channels after entering into written interconnection agreement may not be adequate and therefore, in case of HITS, some more time from date of entering into written interconnection agreement may be warranted for provisioning of signals.
- 3.99 Apropos the above, the issues for consultation are:-

- a) **Whether the time periods prescribed for interconnection between MSO and LCO should be made applicable to interconnection between HITS/IPTV operator and LCO also? If no, then suggest alternate with justification.**
- b) **Should the time period of 30 days for entering into interconnection agreement and 30 days for providing signals of TV channels is appropriate for HITS also? If no, what should be the maximum time period for provisioning of signal to LCOs by HITS service provider? Please provide justification for the same.**

REVENUE SHARE BETWEEN HITS/IPTV OPERATOR AND LCO

3.100 The existing regulatory framework provides that the commercial arrangements between HITS/IPTV/MSOs and the LCOs are to be decided through mutual negotiations. However, in DAS, it has been provided that if the MSO and the LCO fail to arrive at mutual agreement, the charges collected from the subscribers shall be shared in the following manner:-

(a) the charges collected from the subscription of channels of basic service tier, free to air channel and bouquet of free to air channels shall be shared in the ratio of 55:45 between multi-system operator and local cable operator respectively; and

(b) the charges collected from the subscription of channels or bouquet of channels or channels and bouquet of channels other than those specified under clause (a) shall be shared in the ratio of 65:35 between multi-system operator and local cable operator respectively

3.101 As mentioned earlier, the Authority has prescribed a framework of interconnection between MSOs and LCOs through prescription of MIA & SIA. The parties entering into an interconnection agreement on the lines of MIA have freedom to decide the roles and responsibilities and

accordingly, mutually agree on revenue share. In case of the SIA the roles and responsibilities for meeting the Quality of Service norms for the consumers have been fixed by the Authority along with fall back revenue share.

3.102 As far as the revenue share between HITS/IPTV operator and LCO is concerned, some might argue that the framework prescribed in DAS may be made applicable for HITS & IPTV platform also. The other view could be that since HITS & IPTV services are at a nascent stage, the revenue share should continue to be left to market forces.

3.103 Apropos the above, the issues for consultation are:-

- a) **Whether the Authority should prescribe a fall back arrangement between HITS/IPTV operator and LCO similar to the framework prescribed in DAS?**
- b) **Is there any alternate method to decide a revenue share between MSOs/ HITS/IPTV operators and LCOs to provide them a level playing field?**

NO-DUES CERIFICATES

3.104 The Interconnection Regulations, 2004 clearly specify the procedure for issuance of monthly invoice to LCOs and further provides that the invoices shall clearly specify the current payment dues and arrears, if any, along with the due date for the payment.

3.105 Many times disputes arise between service providers on account of no dues certificate. LCOs argue that often MSOs do not acknowledge the payment made by them and do not communicate outstanding, if any, immediately after receiving payment. They argue that outstanding amounts are communicated by MSOs much later, that too mostly at the time of some other dispute between them.

3.106 One can argue that if arrears have not been mentioned in the invoices raised subsequent to any outstanding then it may be considered as no dues certificate itself. Others may argue that in one or two invoices this may happen due to cycle mismatch or accounting errors. So no dues certificate may be requested separately by seeker with due acknowledgement by provider for receipt of such a request and provider may provide no dues certificate or provide details of dues, within a definite time period, say 15 days from date of receipt of the request.

3.107 Apropos the above, the issue for consultation is:-

- a) Whether a service provider should provide on demand a no due certificate or details of dues within a definite time period to another service provider? If yes, then what should be the time period?**

PROVIDING SIGNALS TO NEW MSOs

3.108 In DAS, the cable operators are required to register themselves as MSO before they become eligible for receiving signals of TV Channels from broadcasters for retransmission to the subscribers. During implementation of DAS, some new MSOs, who were operating earlier as LCO in the same area and were linked with the other MSO, raised the issues of refusal by broadcasters to provide signals. They argue that broadcaster deny signals of TV channels to them on ground of outstanding payments towards their past affiliation with the MSOs. These new MSOs have also indicated that many a times the existing MSOs due to fear of competition raise certain old outstanding amounts and prevails upon the broadcaster to refuse the signals of TV channels to new MSOs. This creates an entry barrier in the sector and hampers competition. They argue that interconnection between new MSOs and

broadcaster should have no linkage or consequence with the past affiliations.

3.109 In DAS, the business transactions are no longer opaque. One view could be that any restriction placed by the broadcasters depending upon the clearance of outstanding dues of the other MSO may hamper the competition between two MSOs and would ultimately hamper the quality of services to the consumer. The other view could be that any kind of outstanding amounts affect cash flow in the value chain. As per existing regulatory framework, any kind of old outstanding amount must be reflected in the current invoice as arrears. Therefore, to address the issue it may be made mandatory for the new MSO to produce the copy of current invoice and payment receipt from the last affiliated MSO, so that the broadcaster cannot deny signals of TV channels on this pretext.

3.110 Apropos the above, the issues for consultation are:-

- a) **Whether it should be made mandatory for the new MSO to provide the copy of current invoice and payment receipt as a proof of having clear outstanding amount with the last affiliated MSO?**
- b) **Whether the broadcaster should be allowed to deny the request of new MSO on the grounds of outstanding payments of the last affiliated MSO?**

SWAPPING OF SET TOP BOX

3.111 During the implementation of DAS, few MSOs have made allegations that their linked LCO sometimes replace the STBs deployed at the subscriber's premises with the STBs of another MSO without the written consent of subscribers. It was argued that such STBs were swapped without following proper procedure for filling of any subscriber surrender

forms and this has resulted in huge revenue losses to the past affiliated MSO of the LCO. Such practices also cause inconvenience to the subscribers.

3.112 To prevent such practices, one view could be that it should be made mandatory that before acquiring an LCO, the new MSO should demand a no-dues certificate from the LCO in respect of the past affiliated MSO.

3.113 Apropos the above, the issues for consultation are:-

a) Whether, it should be made mandatory for the MSOs to demand a no-dues certificate from the LCOs in respect of their past affiliated MSOs?

b) Whether it should be made mandatory for the LCOs to provide copy of last invoice/ receipts from the last affiliated MSOs?

3.114 The stakeholders may provide their comments on any other relevant issue that they may deem fit in relation to this consultation paper.

CHAPTER-4
ISSUES FOR CONSULTATION

The following issues have been posed for consultation. To better understand and appreciate the viewpoint/comments it is essential that the same are supported with appropriate reasoning.

Issue 1:- COMMON INTERCONNECTION FRAMEWORK FOR ALL TYPES OF ADDRESSABLE SYSTEMS [3.2 to 3.5]

- 1.1 How a level playing field among different service providers using different addressable systems can be ensured?
- 1.2 Should a common interconnection regulatory framework be mandated for all types of addressable systems?

Issue 2:- TRANSPARENCY, NON-DISCRIMINATION AND NON-EXCLUSIVITY [3.6 to 3.25]

- 2.1 Is there any need to allow agreements based on mutually agreed terms, which do not form part of RIO, in digital addressable systems where calculation of fee can be based on subscription numbers? If yes, then kindly justify with probable scenarios for such a requirement.
- 2.2 How to ensure that the interconnection agreements entered on mutually agreed terms meet the requirement of providing a level playing field amongst service providers?
- 2.3 What are the ways for effectively implementing non-discrimination on ground? Why confidentiality of interconnection agreements a necessity? Kindly justify the comments with detailed reasons.
- 2.4 Should the terms and conditions (including rates) of mutual agreement be disclosed to other service providers to ensure the non-discrimination?

- 2.5 Whether the principles of non-exclusivity, must-provide, and must-carry are necessary for orderly growth of the sector? What else needs to be done to ensure that subscribers get their choice of channels at competitive prices?
- 2.6 Should the RIO contain all the terms and conditions including rates and discounts, if any, offered by provider, for each and every alternative? If no, then how to ensure non-discrimination and level playing field? Kindly provide details and justify.
- 2.7 Should RIO be the only basis for signing of agreement? If no, then how to make agreements comparable and ensure non-discrimination?
- 2.8 Whether SIA is required to be published by provider so that in cases where service providers are unable to decide on mutually agreed terms, a SIA may be signed?
- 2.9 Should a format be prescribed for applications seeking signals of TV channels and seeking access to platform for re-transmission of TV channels along with list of documents required to be enclosed prior to signing of SIA be prescribed? If yes, what are the minimum fields required for such application formats in each case? What could be the list of documents in each case?
- 2.10 Should 'must carry' provision be made applicable for DTH, IPTV and HITS platforms also?
- 2.11 If yes, should there be a provision to discontinue a channel by DPO if the subscription falls below certain percentage of overall subscription of that DPO. What should be the percentage?
- 2.12 Should there be reasonable restrictions on 'must carry' provision for DTH and HITS platforms in view of limited satellite bandwidth? If yes, whether it should be similar to that provided in existing regulations for DAS or

different. If different, then kindly provide the details along with justification.

- 2.13 In order to provide more transparency to the framework, should there be a mandate that all commercial dealings should be reflected in an interconnection agreement prohibiting separate agreements on key commercial dealing viz. subscription, carriage, placement, marketing and all its cognate expressions?

Issue 3:- EXAMINATION OF RIO [3.26-3.32]

- 3.1 How can it be ensured that published RIO by the providers fully complies with the regulatory framework applicable at that time? What deterrents do you suggest to reduce non compliance?
- 3.2 Should the regulatory framework prescribe a time period during which any stakeholders may be permitted to raise objections on the terms and conditions of the draft RIO published by the provider?
- 3.3 If yes, what period should be considered as appropriate for raising objections?

Issue 4:- TIME LIMIT FOR PROVIDING SIGNALS OF TV CHANNELS / ACCESS TO THE PLATFORM [3.33-3.39]

- 4.1 Should the period of 60 days already prescribed to provide the signals may be further sub divided into sub-periods as discussed in consultation paper? Kindly provide your comments with details.
- 4.2 What measures need to be prescribed in the regulations to ensure that each service provider honour the time limits prescribed for signing of mutual agreement? Whether imposition of financial disincentives could be an effective deterrent? If yes, then what should be the basis and amount for such financial disincentive?

- 4.3 Should the SIA be mandated as fall back option?
- 4.4 Should onus of completing technical audit within the prescribed time limit lie with broadcaster? If no, then kindly suggest alternative ways to ensure timely completion of the audit so that interconnection does not get delayed.
- 4.5 Whether onus of fixing the responsibility for delay in individual cases may be left to an appropriate dispute resolution forum?

Issue 5:- REASONS FOR DENIAL OF SIGNALS / ACCESS TO THE PLATFORM [3.40-3.42]

- 5.1 What are the parameters that could be treated as the basis for denial of the signals/ platform?
- 5.2 Should it be made mandatory for service providers to provide an exhaustive list in the RIO which will be the basis for denial of signals of TV channels/ access of the platform to the seeker.

Issue 6:- INTERCONNECTION MANAGEMENT SYSTEM (IMS) [3.43-3.48]

- 6.1 Should an IMS be developed and put in place for improving efficiencies and ease of doing business?
- 6.2 If yes, should signing of interconnection agreements through IMS be made mandatory for all service providers?
- 6.3 If yes, who should develop, operate and maintain the IMS? How that agency may be finalised and what should be the business model?
- 6.4 What functions can be performed by IMS in your view? How would it improve the functioning of the industry?
- 6.5 What should be the business model for the agency providing IMS services for being self supporting?

Issue 7:- TERRITORY OF INTERCONNECTION AGREEMENT [3.49-3.51]

- 7.1 Whether only one interconnection agreement is adequate for the complete territory of operations permitted in the registration of MSO/ IPTV operator?
- 7.2 Should MSOs be allowed to expand the territory within the area of operations as permitted in its registration issued by MIB without any advance intimation to the broadcasters?
- 7.3 If no, then should it be made mandatory for MSO to notify the broadcaster about the details of new territories where it wants to start distribution of signal a fresh in advance? What could be the period for such advance notification?

Issue 8:- PERIOD OF AGREEMENTS [3.52-3.55]

- 8.1 Whether a minimum term for an interconnection agreement be prescribed in the regulations? If so, what it should be and why?

Issue 9:- CONVERSION FROM FTA TO PAY CHANNELS [3.56-3.57]

- 9.1 Whether it should be made mandatory for all the broadcasters to provide prior notice to the DPOs before converting an FTA channel to pay channel?
- 9.2 If so, what should be the period for prior notice?

Issue 10:- MINIMUM SUBSCRIBERS GUARANTEE [3.58-3.62]

- 10.1 Should the number of subscribers availing a channel be the only parameter for calculation of subscription fee?
- 10.2 If no, what could be the other parameter for calculating subscription fee?

10.3 What kind of checks should be introduced in the regulations so that discounts and other variables cannot be used indirectly for minimum subscribers guarantee?

Issue 11:- MINIMUM TECHNICAL SPECIFICATIONS [3.63-3.67]

11.1 Whether the technical specifications indicated in the existing regulations of 2012 adequate?

11.2 If no, then what updates/ changes should be made in the existing technical specifications mentioned in the schedule I of the Interconnection Regulations, 2012?

11.3 Should SMS and CAS also be type approved before deployment in the network? If yes, then which agency may be mandated to issue test certificates for SMS and CAS?

11.4 Whether, in case of any wrong doing by CAS or SMS vendor, action for blacklisting may be initiated by specified agency against the concerned SMS or CAS vendor.

Issue 12:- TECHNICAL AUDIT OF ADDRESSABLE SYSTEMS [3.68-3.72]

12.1 Whether the type approved CAS and SMS be exempted from the requirement of audit before provisioning of signal?

12.2 Whether the systems having the same make, model, and version, that have already been audited in some other network and found to be compliant with the laid down specifications, need not be audited again before providing the signal?

12.3 If no, then what should be the methodology to ensure that the distribution network of a DPO satisfies the minimum specified conditions

for addressable systems while ensuring provisioning of signals does not get delayed?

- 12.4 Whether the technical audit methodology prescribed in the regulations needs a review? If yes, kindly suggest alternate methodology.
- 12.5 Whether a panel of auditors on behalf of all broadcasters be mandated or enabled? What could be the mechanism?
- 12.6 Should stringent actions like suspension or revocation of DPO license/ registration, blacklisting of concerned SMS and CAS vendors etc. be specified for manipulating subscription reports? Will these be effective deterrent? What could be the other measures to curb such practices?

Issue 13:- SUBSCRIPTION DETAILS [3.73-3.80]

- 13.1 Should a common format for subscription report be specified in the regulations? If yes, what should be the parameters? Kindly suggest the format also.
- 13.2 What should be the method of calculation of subscription numbers for each channel/ bouquet? Should subscription numbers for the day be captured at a given time on daily basis?
- 13.3 Whether the subscription audit methodology prescribed in the regulations needs a review?
- 13.4 Whether a common auditor on behalf of all broadcasters be mandated or enabled? What could be the mechanism?
- 13.5 What could be the compensation mechanism for delay in making available subscription figures?
- 13.6 What could the penal mechanism for difference be in audited and reported subscription figures?

13.7 Should a neutral third party system be evolved for generating subscription reports? Who should manage such system?

13.8 Should the responsibility for payment of audit fee be made dependent upon the outcome of audit results?

Issue 14:- DISCONNECTION OF SIGNALS OF TV CHANNELS [3.81-3.84]

14.1 Whether there should be only one notice period for the notice to be given to a service provider prior to disconnection of signals?

14.2 If yes, what should be the notice period?

14.3 If not, what should be the time frame for disconnection of channels on account of different reasons?

Issue 15:- PUBLICATION OF ON SCREEN DISPLAY FOR ISSUE OF NOTICE FOR DISCONNECTION OF TV SIGNALS [3.85-3.88]

15.1 Whether the regulation should specifically prohibit, the broadcasters and DPOs from displaying the notice of disconnection, through OSD, in full or on a partial part of the screen?

15.2 Whether the methodology for issuing notice for disconnection prescribed in the regulations needs a review? If yes, then should notice for disconnection to consumers be issued by distributor only?

15.3 Whether requirement for publication of notices for disconnection in the news papers may be dropped?

Issue 16:- PROHIBITION OF DPO AS AGENT OF BROADCASTERS [3.89-3.91]

16.1 Whether the Regulations should specifically prohibit appointment of a MSO, directly or indirectly, as an agent of a broadcaster for distribution of signal?

16.2 Whether the Regulations make it mandatory for broadcasters to report their distributor agreements, through which agents are appointed, to the Authority for necessary examination of issue of conflict of interest?

**Issue 17:- INTERCONNECTION BETWEEN HITS/IPTV OPERATOR AND LCO
[3.93-3.96]**

17.1 Whether the framework of MIA and SIA as applicable for cable TV services provided through DAS is made applicable for HITS/IPTV services also.

17.2 If yes, what are the changes, if any, that should be incorporated in the existing framework of MIA and SIA.

17.3 If no, what could be other method to ensure non discrimination and level playing field for LCOs seeking interconnection with HITS/IPTV operators?

**Issue 18:- TIME PERIOD FOR PROVIDING SIGNALS OF TV CHANNELS
[3.97-3.99]**

18.1 Whether the time periods prescribed for interconnection between MSO and LCO should be made applicable to interconnection between HITS/IPTV operator and LCO also? If no, then suggest alternate with justification.

18.2 Should the time period of 30 days for entering into interconnection agreement and 30 days for providing signals of TV channels is appropriate for HITS also? If no, what should be the maximum time period for provisioning of signal to LCOs by HITS service provider? Please provide justification for the same.

**Issue 19:- REVENUE SHARE BETWEEN HITS/IPTV OPERATOR AND LCO
[3.100-3.103]**

- 19.1 Whether the Authority should prescribe a fall back arrangement between HITS/IPTV operator and LCO similar to the framework prescribed in DAS?
- 19.2 Is there any alternate method to decide a revenue share between MSOs/ HITS/IPTV operators and LCOs to provide them a level playing field?

Issue 20:- NO-DUES CERIFICATES [3.104-3.107]

- 20.1 Whether a service provider should provide on demand a no due certificate or details of dues within a definite time period to another service provider? If yes, then what should be the time period?

Issue 21:- PROVIDING SIGNALS TO NEW MSOs [3.108-3.110]

- 21.1 Whether it should be made mandatory for the new MSO to provide the copy of current invoice and payment receipt as a proof of having clear outstanding amount with the last affiliated MSO?
- 21.2 Whether the broadcaster should be allowed to deny the request of new MSO on the grounds of outstanding payments of the last affiliated MSO?

Issue 22:- SWAPPING OF SET TOP BOX [3.111-3.113]

- 22.1 Whether, it should be made mandatory for the MSOs to demand a no-dues certificate from the LCOs in respect of their past affiliated MSOs?
- 22.2 Whether it should be made mandatory for the LCOs to provide copy of last invoice/ receipts from the last affiliated MSOs?

Issue 23:- ANY OTHER RELEVANT ISSUE THAT THEY MAY DEEM FIT IN RELATION TO THIS CONSULTATION PAPER.

List of Acronyms

Abbreviations	Description
B&CS	Broadcasting and Cable Services
BECIL	Broadcast Engineering Consultants India Ltd.
BIS	Bureau of Indian Standards
CAS	Conditional Access System
DAS	Digital Addressable Cable TV Systems
DPO	Distribution Platform Operator
DTH	Direct to Home
FTA	Free-to-Air
HITS	Head-end in The Sky
ICT	Information and Communications Technology
IMS	Interconnect Management System
Interconnection Regulations, 2004	Telecommunication (Broadcasting and Cable Services) Interconnection Regulations, 2004 (13 of 2004)
Interconnection Regulations, 2012	Telecommunication (Broadcasting and Cable Services) Interconnection (Digital Addressable Cable Television Systems) Regulations, 2012 (9 of 2012)
IPTV	Internet Protocol Television
IRD	Integrated Receivers and Decoder
LCO	Local Cable Operator
MIA	Model Interconnection Agreement
MSO	Multi System Operator
OSD	On Screen Display screen
RIO	Reference Interconnect Offer
SIA	Standard Interconnection Agreement
SMS	Subscribers Management System
STB	Set-Top-Boxes
TRAI	Telecom Regulatory Authority of India
TRAI Act	Telecom Regulatory Authority of India Act, 1997

Schedule I

Digital Addressable cable TV Systems Requirements

A) Conditional Access System (CAS) & Subscriber Management System (SMS) :

1. *The current version of the conditional access system should not have any history of the hacking.*
2. *The fingerprinting should not get invalidated by use of any device or software.*
3. *The STB & VC should be paired from head-end to ensure security.*
4. *The SMS and CA should be integrated for activation and deactivation process from SMS to be simultaneously done through both the systems. Further, the CA system should be independently capable of generating log of all activation and deactivations.*
5. *The CA company should be known to have capability of upgrading the CA in case of a known incidence of the hacking.*
6. *The SMS & CAS should be capable of individually addressing subscribers, on a channel by channel and STB by STB basis.*
7. *The SMS should be computerized and capable to record the vital information and data concerning the subscribers such as:*
 - a. *Unique Customer Id*
 - b. *Subscription Contract number*
 - c. *Name of the subscriber*
 - d. *Billing Address*

- e. Installation Address*
- f. Landline telephone number*
- g. Mobile telephone number*
- h. Email id*
- i. Service/Package subscribed to*
- j. Unique STB Number*
- k. Unique VC Number*

8. The SMS should be able to undertake the:

a. Viewing and printing historical data in terms of the activations, deactivations etc

b. Location of each and every set top box VC unit

c. The SMS should be capable of giving the reporting at any desired time about:

i. The total no subscribers authorized

ii. The total no of subscribers on the network

iii. The total no of subscribers subscribing to a particular service at any particular date.

iv. The details of channels opted by subscriber on a-la carte basis.

v. The package wise details of the channels in the package.

vi. The package wise subscriber numbers.

vii. The ageing of the subscriber on the particular channel or package

viii. The history of all the above mentioned data for the period of the last 2 years

9. The SMS and CAS should be able to handle at least one million subscribers on the system.

10. Both CA & SMS systems should be of reputed organization and should have been currently in use by other pay television services that have an aggregate of at least one million subscribers in the global pay TV market.

11. The CAS system provider should be able to provide monthly log of the activations on a particular channel or on the particular package.

12. The SMS should be able to generate itemized billing such as content cost, rental of the equipments, taxes etc.

13. The CA & SMS system suppliers should have the technical capability in India to be able to maintain the system on 24x7 basis throughout the year.

14. CAS & SMS should have provision to tag and blacklist VC numbers and STB numbers that have been involved in piracy in the past to ensure that the VC or the STB can not be re-deployed.

(B) Fingerprinting:

1. The finger printing should not be removable by pressing any key on the remote.

2. The Finger printing should be on the top most layer of the video.

3. The Finger printing should be such that it can identify the unique STB number or the unique Viewing Card (VC) number.

4. The Finger printing should appear on all the screens of the STB, such as Menu, EPG etc.

5. *The location of the Finger printing should be changeable from the Headend and should be random on the viewing device.*
6. *The Finger printing should be able to give the numbers of characters as to identify the unique STB and/or the VC.*
7. *The Finger printing should be possible on global as well as on the individual STB basis.*
8. *The Overt finger printing and On screen display (OSD) messages of the respective broadcasters should be displayed by the MSO/LCO without any alteration with regard to the time, location, duration and frequency.*
9. *No common interface Customer Premises Equipment (CPE) to be used.*
10. *The STB should have a provision that OSD is never disabled.*

(C) Set Top Box (STB) :

1. *All the STBs should have embedded Conditional Access.*
2. *The STB should be capable of decrypting the Conditional Access inserted by the Headend.*
3. *The STB should be capable of doing Finger printing. The STB should support both Entitlement Control Message (ECM) & Entitlement Management Message (EMM) based fingerprinting.*
4. *The STB should be individually addressable from the Headend.*
5. *The STB should be able to take the messaging from the Headend.*
6. *The messaging character length should be minimal 120 characters.*
7. *There should be provision for the global messaging, group messaging and the individual STB messaging.*
8. *The STB should have forced messaging capability.*

9. *The STB must be BIS compliant.*

10. *There should be a system in place to secure content between decryption & decompression within the STB.*

11. *The STBs should be addressable over the air to facilitate Over The Air (OTA) software upgrade.*
