TRAI'S CONSULTATION PAPER NO. 05/2016 DATED 04TH MAY 2016 ON INTERCONNECTION FRAMEWORK FOR BROADCASTING TV SERVICES DISTRIBUTED THROUGH ADDRESSABLE SYSTEMS

Submissions for and on behalf of STAR India (P) Ltd.

V.SHYAMALA (shyamala.v@startv.com) OR PULAK BAGCHI (pulak.bagchi@startv.com) OR RAVI SRIVASTAVA (ravi.srivastava@startv.com)

Preamble

At the outset, we wish to highlight certain pertinent facts which would enable you to appreciate our concerns and suggestions to this Consultation Paper, from a holistic perspective.

Need to recognize the Statutory and Constitutional Rights of Broadcasting Organizations under the Copyright Act, 1957

Broadcasting organizations like us have been granted certain statutory rights under a Parliamentary enactment being the Copyright Act 1957 ("Copyright Act"), which was enacted in compliance with India's International Treaty obligations, duly captured in Chapter VIII, Section 37(3) of the Copyright Act, 1999. By virtue of the amendment to the Copyright Act in the year 1994, broadcasting organizations which were engaged in the business of transmitting signals containing audio and/or audio-visual content, were accorded protection. India being a signatory to the TRIPS Agreement amended its Copyright Act in the year 1994 so as to incorporate Section 37, which came into effect from 10th May 1995. India did not amend the existing Section 14 of the Copyright Act, which deals with 'works' as defined under Section 2 (y) of the said Act but instead, incorporated Broadcast Rights in a separate Chapter, dealing with Broadcast Reproduction Rights which protected the exploitation of signals emanating from broadcasting organizations. Unlike the United Kingdom, the United States of America and New Zealand, which amended the definition of 'Copyright' to include a 'Broadcast Reproduction Right', India gave protection to broadcasting organizations as a separate sui generis right, distinct from copyright as envisaged under Section 14. This is a clear reflection of the importance and priority accorded to Broadcast Reproduction Rights under Indian Law.

Section 37 of the Copyright Act, defines the scope of broadcast reproduction rights and mandates that any person, who during the continuation of the broadcasting reproduction right, distributes/retransmits without the Authority of the owner, is deemed to infringe the Broadcast Reproduction Rights. The Broadcasters have also been provided rights available to copyright owners by virtue of Section 39A of the Copyright Act. Any limitation to the exploitation of broadcast reproduction rights has to necessarily comply with the Three-Step Test articulated under the Berne Convention, Rome Convention and TRIPS Agreement, to ensure that the limitation does not fall foul of India's international Treaty obligations. The Three Step Test mandates that:

a. The exceptions to exclusive rights should be confined to "certain special cases",
b. The exceptions "do not conflict with a normal exploitation of a work", and
c. The exceptions "do not unreasonably prejudice the legitimate interests of the author."

Additionally, a broadcast carried by the broadcasting organizations has all the trappings of 'property', as it is the result of accumulated labour and investment of the broadcasting organization, entitling legal protection. Consequently, a broadcaster has the right to earn revenues from exploitation of his property. Thus, in addition to being a statutory right protected under the provisions of the Copyright Act, a broadcast is also a 'property right' and capable of protection as a Constitutional Right under Article 300 (A) of the Constitution of India.

However, despite broadcasting enjoying a status of a constitutional right and a statutory right, there has been a consistent and systematic erosion of this right by virtue of subordinate legislation issued by the Authority from time to time, which has the cumulative effect of having reduced or rendered the right in the broadcast, illusory or non-existent. The Telecom Regulatory Authority of India ("TRAI") Regulations and Tariff Orders have over a period of time eroded all the value of broadcast and have virtually rendered the rights protected under the Section 37(3) of Copyright Act, 1999, redundant. Classic examples of incursion into a broadcaster's constitutionally and statutorily protected rights are in the form of 'must provide' and regulation of price at the wholesale level. While the substantive law dealing with Broadcast Reproduction Rights recognizes and protects the freedom of contract of a broadcasting organization, by virtue of subordinate legislations being notified from time to time by TRAI, this right has been rendered illusory. We respectfully submit that the Regulations and tariff orders notified by TRAI on broadcasting services are in the nature of limitations on the exclusive broadcast reproduction rights of a broadcasting organization, guaranteed under the Copyright Act.

It is respectfully submitted that each of the grounds identified above, not only interfere with the normal exploitation of the broadcast by a broadcasting organisation, but is also unreasonably prejudicial to the legitimate interest of a broadcasting organisation. We request the Authority to take into consideration the universe of rights provided under the Copyright Act and prevent the continued erosion of these rights and instead restore the eroded statutory and constitutional rights of broadcasting organizations under the on-going consultation. We urge the Authority to understand the need to protect and preserve our statutory rights as a broadcasting organization and create necessary balances in the existing regulatory framework which will recognize our rights under the Copyright Act and align with the same.

Broadcasting Services are distinct from Telecommunication Service

We request the Authority to also appreciate the distinction between Telecommunication services and the Broadcasting services. Telecommunication services do not deal with any content which is being procured and/or created at a substantial cost. In contrast, a Broadcasting organization relies almost entirely on the quality of content which is procured/created at a substantial cost. Broadcasting is perhaps the only industry where the wholesale tariff has virtually remained the same since the year 2004. Consequently, while the wholesale tariff has remained stagnant since the year 2004, content creation and procurement costs have increased manifold. It is also pertinent to note that Regulations are distinctly skewed in favour of distribution platforms, resulting in Distribution Platform Operators ("DPOs") enjoying a last mile monopoly. As DPOs virtually control the distribution pipelines, the Broadcasters, who are mandated to provide their channels, have been left at the mercy of DPOs. The inability of Broadcasters to even negotiate terms of provisioning of its signals would not only threaten the viability of their business but would also fall foul of the Copyright Act and India's Treaty obligations.

Freedom to Negotiate must be preserved – Controlling discounts at wholesale level will bring realism in pricing and check discriminatory behaviour

In continuation of our submission to protect and preserve our rights under the Copyright Act, we

would urge the Authority to not to erode of our right to freedom of contract in negotiating with DPOs. The Authority would appreciate that while Article 14 prohibits discrimination, it permits classifications based on intelligible differentia. While similarly placed persons cannot be discriminated against, it is equally true that unequal's cannot be treated alike. The proposed Regulations must allow freedom to negotiate to Broadcasters so as to meet the peculiar demands of the market. Universal treatment to all seekers of signals (despite intelligible differences) is not an obligation imposed by Law nor is it desirable. There are sufficient checks and balances to ensure that there is healthy competition in the market. We would urge you to not burden broadcasters with universal treatment of all stakeholders (in spite of intelligible differentia), as such an obligation is alien to any free industry particularly when the Law (the Copyright Act) covering such subject specifically permits freedom of contract. There ought not to be any presumption of discrimination merely on account of having differently situated entities being treated differently, in commercial negotiations.

Further as has been submitted by us in our response to Consultation Paper on Tariff Related to TV Services dated 29th January, 2016 ("Tariff Consultation Paper") discount caps will automatically check discriminatory behaviour during negotiation and on the contrary will facilitate designing discount criteria based on intelligible differentia to cater to the needs of the DPO's across the country which in turn will help them serve the diverse needs of their subscribers/ consumers.

INTERCONNECTION FOR ADDRESSABLE SYSTEMS

Issue No. 1

Common interconnection framework for all types of addressable systems

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?

A common regulatory framework for interconnection should be mandated among Digital addressable cable systems ("DACS"), Direct to home ("DTH"), Head end in the Sky ("HITS"), and Internet Protocol television ("IPTV"), to ensure a level playing field.

Such a uniform regulatory framework across aforesaid platforms will not only ensure level playing field but also transparency and non-discrimination in dealing with different platforms using different addressable systems.

The aforesaid uniform framework prescribed should only be made applicable to distributors of TV channels, as contemplated in the uplink / downlink guidelines of Ministry of Information & Broadcasting i.e. Multi System Operator ("MSO")/Cable Operator registered under the Cable Television Networks (Regulation) Act 1995 or to a DTH operator registered under the DTH guidelines issued by Government of India or to an IPTV Service Provider duly permitted under their existing Telecom License or authorised by department of telecommunication to a HITS operator duly permitted under the policy guidelines for HITS operators issued by Ministry of Information and Broadcasting, Government of India.

Issue No. 2

Transparency, Non-Discrimination and Non-Exclusivity

We fully believe in transparency and non-discrimination as has been enshrined in the Regulations. However the same should be harmoniously aligned with the intrinsic right of service providers to mutually negotiate the terms of trade in keeping with the statutory and constitutional rights as recognised under the Contract Act and the Copyright Act. Transparency and non-discrimination cannot in any manner take away or undermine the freedom to mutually negotiate contracts.

As has been submitted by us in our response to the Tariff Consultation Paper, capping of discounts offered by broadcasters to DPOs will act as a sufficient deterrent to check any kind of pricing abuse and discriminatory practices.

Hence, the broadcasters and DPOs should be given the complete freedom to negotiate within the discount caps, on multiple criteria. Given the diversity of content offerings and markets (regional, linguistic, cultural), freedom to negotiate the parameters of discount should be left to market forces so long as the discount is within the cap.

The Authority will appreciate that TV channels are not homogenous products unlike FMCG and therefore have different value proposition across platforms depending on a host of factors that are unique to such DPO. The discount parameters can differ from one DPO to another depending on the market that they are catering to and it would be inappropriate to apply uniform discount parameters without any intelligible differentia across the board. Hence the service providers should be given the freedom to negotiate these parameters within the given discount cap to suit their respective business needs. Differential parameters of discounts are not discriminatory so long as they are justified to meet consumer needs and interests. On the contrary uniform discounting parameters may result in creating market distortions and will not help broadcasters address the diverse need of DPOs and consumers across the country, which is certainly not the intent of the Authority.

In effect, Reference Interconnect Offer ("RIO") will be the starting point for negotiations with flexibility to negotiate the discounts within the cap. This will ensure that RIO is not illusory and is a realistic fall back option.

With the above perspective we offer our response to the following questions posed in this section.

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.

Yes, there is a need for mutually negotiated agreements for the reasons explained above. However the mutually negotiated agreement shall have the RIO as its starting point. When discounts are capped, it will automatically put a check on discriminatory behaviour. However, the negotiations should be confined only with regard to the parameters of such discount without breaching the stipulated caps prescribed by the Regulator. This flexibility is needed because all discounting parameters are not relevant for all DPOs.

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?

As has been stated in the preceding question, the starting point for mutual negotiations shall be the RIO. Any kind of negotiations will evolve around commercial terms and rate more specifically the rate and the discount. Level playing fields can be ensured by the discount caps as aforesaid.

Further the Regulations provide for submission of all agreements including the mutually negotiated ones to TRAI under the Register of Interconnect. Hence, the TRAI can evaluate any discriminatory behaviour and initiate appropriate remedial action for the same.

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.

Our suggestions as aforesaid will be ensuring level playing fields including non-discrimination.

We rely and reiterate on our earlier submission in response to Consultation on The Register of Interconnection Agreements (Broadcasting and Cable Services) Regulations, 2016, dated 23rd of March 2016. ("Register of Interconnect Agreements Consultation").

Preserving the confidentiality of sensitive commercial information is a vital safeguard in respect of commercial contracts. This is recognized in various acts including RTI Act, Competition Act and in Anti-Dumping jurisdiction. Protection of commercially sensitive information is essential to ensure level playing field between service providers who are also rivals and competitors so that there is there is no unfair advantage or gain and to maintain the competitive edge which is vital for the growth of business.

We would like to reiterate that an RTI like situation is unfeasible with respect to inter-se commercial contracts between service providers as every sector, especially broadcast, satellite and cable, has its own economic peculiarities which may not be fully appreciated by the public in general.

d) Should the terms and conditions (including rates) of mutual agreement be disclosed to other service providers to ensure the non-discrimination?

In addition to the submission below, we once again rely and reiterate on our earlier submission in response to Register of Interconnect Agreements Consultation.

i. Making access easy to commercial information will create chaos and constant disruption in the sector which will create an uncertain business environment wherein there will be no sanctity to written contracts. It will give an opportunity to dishonest players to wriggle out of its contractual obligation on the basis of unfounded assumptions and reopen validly concluded contracts. Hence, access to information should be made available on a case to case basis by the Authority after examining the need for such access and providing the concerned stakeholders adequate opportunity of being heard. This will ensure that principles of non-discrimination are upheld and realized in true letter and spirit.

ii. Information should be made available only to interested service providers. It will not serve any purpose to make sensitive commercial information between two service providers to the general public as these cannot be equated with statutory documents contemplated under the provisions of the Companies Act or any other statute. Further, making the information available to one and all is not going to serve any purpose. Hence we suggest that the information shall be made available in the manner suggested above i.e. the information shall be made available only to service provider and on request after the Authority applying its mind and affording reasons for providing the information.

iii. Strict confidentiality obligations should be imposed on the information seeker and non-compliance should be visited with penal consequences so as to deter any misuse.

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?

Must Provide & Non- Exclusivity

At the outset we submit that the principles of non-exclusivity and must-provide should not militate and dilute the rights of exclusivity given to broadcasters under the Copyright Act.

In order to ensure that the mandate of Must-provide is implemented in letter and spirit we recommend the following:

i. It should be made conditional upon DPOs who avail channels under the "Must Provide" to compulsorily make available the same to all its subscribers who seek such channel.
ii. Must provide should be linked to good conduct and behaviours of the DPO. Any contravention of the Regulations or violation of contractual terms should result in the operators' inability to resort to Must Provide for availing signals.
iii. The Interconnect Regulations should ensure strict adherence to payment terms and prescribe deterrence for default like blacklisting of defaulters which will disentitle them from seeking signals under must provide for a minimum period of 2 years, imposition of penalties and penal interest in addition to interest on delayed payment.
iv. Once a interconnect agreement is signed, the same shall be valid for the term of the agreement and DPOs should not be allowed to terminate the agreement in part or in full for the entire term of the agreement. In effect they will be bound to discharge their obligation in terms of the agreement for the entire term. DPOs should be allowed option to terminate the interconnection agreement only under following circumstances:-
    - By efflux of time
    - Either party ceases to do business.
    - Modification of RIOs by service providers
    - Change in law / regulatory intervention.

Must Carry

In so far as the principle of Must Carry is concerned the principle of network neutrality must be applied and it should be the DPOs obligation to build network infrastructure which will have the capacity and capability to offer all channels on their platform for the consumers to choose. Availability of Satellite bandwidth, for DTH & HITS, is only a commercial consideration and there is no technical 'impossibility' of enhancing bandwidth.There should be complete bar on carriage fee and the DPOs should be obligated to carry the channels on "Must Carry" basis in a transparent and non- discriminatory manner. Operators should not be allowed to act as gatekeepers for the content that their subscribers watch.

DPOs should not be allowed to create services / channels and offer the same to consumers. Till the time however the same is not possible, all such channels should fall in the ambit of MIB's licensing regime and TRAI's 'must provide' the Regulations without discrimination. Local channels Showcase, Active services, SVOD etc. should be prohibited. Either these should not be allowed in the first place or they should come under the ambit of all the Regulations that are applicable to channels that are permitted under the Uplinking/Downlinking guidelines including TRAI's 'Must Provide'.

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.

RIO should contain general terms and conditions and rates. However, the discounts must be left to mutual negotiations within the cap and should not form part of the RIO. Non-discrimination can be addressed by capping the discount which will make the RIO a real fall back option.

g) Should RIO be the only basis for signing of agreement? If no, then how to make agreements comparable and ensure non-discrimination?

No, Broadcasters should be allowed to negotiate mutual agreements with RIO as the starting point of negotiations. Discounts on the basis of mutual negotiations will check discrimination as the DPO is free to choose the discount criteria within the cap which are relevant to its market and business.

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?

As stated above we disagree with any form or model of SIA. The service providers can opt for the RIO on failure of mutual negotiations.

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?

An appropriate application format may be designed for seeker of signals and access to platform on Must-Provide/Must Carry as the case maybe on the basis of RIO. We once again reiterate that there is no need to prescribe any SIA.

j) Should 'must carry' provision be made applicable for DTH, IPTV and HITS platforms also?

Yes, 'Must carry' mandate should be made applicable universally to all addressable platforms to ensure a level playing field.

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?

There should be NO provision to discontinue a channel basis percentage of overall subscription as the same would defeat the principles of "must carry" on a non-discriminatory and transparent basis.

It is pertinent to note that DPO controls the channel availability to its consumers and the very nature of this ability vests the DPO with power to control percentage of overall subscription of that particular DPO. Any provision to discontinue channel on basis of percentage of overall subscription of that DPO, will mean offering unilateral power to DPOs to discriminate amongst various channels. The same shall be against the principles of network neutrality and will enable operators to act as gatekeepers for the channels watched by their subscribers.

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.

Under uniform regulatory norms, there should be no differentiation for DTH and HITS platforms. Hence, there should be no restrictions on 'must carry' provision for DTH and HITS platforms

Satellite bandwidth is only a commercial consideration and there is no 'impossibility' of enhancing bandwidth

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?

We recommend a single consolidated agreement for all commercial terms between service providers in relation to provisioning of signal of channels. All commercial considerations – subscription, carriage, placement, marketing fee etc. should be subsumed as part of the same contract within the prescribed discount cap to prevent circumvention of principle of transparency and discrimination.

Issue No. 3

Examination of RIO

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?

If service provider publishes RIO which is contravenes the provisions of the Regulations, the Authority can suo-moto initiate appropriate action for violation of the Regulations by issuance of directions and also impose financial disincentives.

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?

Firstly, we disagree with the concept of publishing of draft RIO, as this will act as a deterrent for business and will lead to endless and multiple disputes, which will result in creating an uncertain business environment as parties will have no basis to contract.

Provider should upload RIO, within the regulatory ambit.

c) If yes, what period should be considered as appropriate for raising objections?

Not relevant in the light of the above submission.

Issue No. 4

Time limit for providing signals of TV channels / access to the platform

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?

We recommend continuation of the prevailing regulation prescribing a consolidated period of 60 days. Division of time period into sub-periods will make it way too cumbersome to administer for service provider and will create chaos leading to multiple disputes. The Regulation already casts an obligation to process the request of signals within the prescribed period of 60 days and convey reasons of refusal if any to the seekers within same period. This has over a decade provided the necessary checks and balances to ensure any misuse of the regulatory intent by the broadcasters service providers.

We concur that imposition of financial disincentive will be a sufficient remedy to check defaults. However specific guidelines should be formulated by the Authority for adjudication and imposition financial incentive to meet the principles of natural justice.

A uniform and reasonable financial disincentive structure should be notified by the Authority for non- compliance of any regulatory provision by the service providers across the value chain.

c) Should the SIA be mandated as fall back option?

No, we strongly oppose the SIA model for interconnection agreement between Broadcasters and DPOs. SIA will be retrograde step given that in a fully addressable environment light touch the Regulation should be the norm which will ultimately enable the market forces to operate at its optimal. Moreover, given the dynamic nature of the sector SIA would be an extreme form of intervention which will act as a deterrent for freedom to trade and will stifle innovation and growth.

We are of the view that existing system of RIO is adequate for seamless arrangements between broadcasters and DPOs. In case of any disputes, there is adequate remedy prescribed under the Act including approaching the Telecom Disputes Settlement and Appellate Tribunal (TDSAT).

In view of the above, RIO should be the starting point for all negotiations and coupled with discount caps, can act as a reasonable 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?

Yes, the onus of completing the technical audit within the prescribed time limit should lie with the broadcaster subject to complete time bound co-operation by the DPO. We further recommend that Broadcast Engineering Consultants India Limited (BECIL) should not be the only authorized technical auditor. A panel of independent technical auditors must be formed to cater to increasing audit demands and to ensure timely completion.

We further concur that the onus of fixing the responsibility for delay in individual cases may be left to an appropriate dispute resolution forum.

Issue No. 5

Reasons for denial of signals / access to the platform

a) What are the parameters that could be treated as the basis for denial of the signals/ platform?

We propose the following criteria to be included for denial of signals:-

- Non-compliance of Regulations and other applicable law including but not limited to deficiency in technical parameters etc.
- De-activated operators who have been in breach of erstwhile agreements
- Payment defaults – to broadcasters & also to any other DPO
- Any DPO indulging in piracy of signals
- Failure to provide all statutory Know your Customer (KYC) documents like Pan Card, service and entertainment tax registration, licenses etc.
- Non–provision of details of proposed head-end/systems necessary for the purpose of conducting technical and commercial audit
- Non-co-operation in technical and commercial Audit
- Material breach of terms and conditions contained in the Agreement between the parties.

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?

Yes, the aforesaid parameters of denial can be listed in the RIO as the basis of denial of signals.

Issue No. 6

Interconnection Management System (IMS)

a) Should an IMS be developed and put in place for improving efficiencies and ease of doing business?

IMS in today's ecosystem is not practical as it would not only lead to increased cost burden but also will be extremely challenging to maintain. It is noteworthy that no other regulation or law in any industry or jurisdiction has such a provision for public display of commercially sensitive data. The Authority may develop suitable centralised system for its internal use but same should be accessible only to the Authority.

Given the confidential nature of the commercial details, the Authority may grant access to such information on a case to case basis supported by an application to the Authority stating the reasons for such access. The Authority must then decide such application after giving an opportunity to the service provider whose information is being sought to justify whether such access is required or not.

b) If yes, should signing of interconnection agreements through IMS be made mandatory for all service providers?

With reference to the response in preceding issue mandating of execution of interconnection agreement by all service providers through IMS should be excluded. So far as broadcasters are

concerned they are presently mandated to file all interconnection agreement with the Authority on an annual basis. Similar obligations should be casted upon all service providers in the value chain.

c) If yes, who should develop, operate and maintain the IMS? How that agency may be finalised and what should be the business model?

In view of the submission made above the issue stands addressed.

d) What functions can be performed by IMS in your view? How would it improve the functioning of the industry?

In view of the submission made above the issue stands addressed.

e) What should be the business model for the agency providing IMS services for being self-supporting?

In view of the submission made above the issue stands addressed.

Issue No. 7

Territory of Interconnection Agreement

a) Whether only one interconnection agreement is adequate for the complete territory of operations permitted in the registration of MSO/ IPTV operator?

While we do not have any reservations to have only one interconnection agreement for the complete territory of operations as permitted by the registration of the DPOs, provided, they opt for the same. However, in the event the DPO expand its area of operations at a future date under a license, they will have to execute a separate agreement for such additional Territory and cannot automatically commence operations in the additional territories not originally licensed. This is necessary to prevent misuse by multiple JVs of same DPOs having national licenses to evade their contractual and legal obligations.

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?

No, if MSO is entering additional territory, they should be obligated to sign separate interconnect agreement for the reasons stated above in order to be in compliance of the provisions of the Copyright Act duly recognised under section 6(3) of the Cable Television Network Regulations Act, 1995 and the rules made thereunder. In effect, without a valid license/permission from the Broadcasters in writing, the DPOs must be prohibited to automatically expand the territory.

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?

Yes, as explained above, they are prohibited under the provisions of the Copyright Act and the Cable Television Network (Regulation) Act to not provide signals of broadcaster channels without executing a written interconnect agreement.

Issue No. 8

Period of Agreements

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

Yes, current minimum period of 1 year for the interconnect agreement should continue. It will decrease burden of renewing agreements frequently and will ensure continuity in delivering channels to the subscribers.

Issue No.9

Conversion from FTA to Pay Channels

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?

It should be made mandatory for Broadcasters to provide prior notice to the DPOs before converting an FTA to pay channel. Period of 30 days should be sufficient.

Issue No. 10

Minimum Subscribers Guarantee

a) Should the number of subscribers availing a channel be the only parameter for calculation of subscription fee?

We recommend subscriber numbers and the rate of channel to be core parameter for calculation of license fee. However discounts within the permitted cap on the rate of the channels based on intelligible criteria like platform size, LCN, parity etc. should also be allowed to be considered for calculation of license / subscription fee.

b) If no, what could be the other parameter for calculating subscription fee?

- In case of RIO agreements the calculation of subscription fee will be determined by the rate and number of subscribers availing the channels.
- In case of mutually negotiated agreement where the starting point of negotiations will be the RIO, the discounts basis multiple parameters as negotiated between the parties within the cap will determine the Rate for calculation of 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 subscribers guarantee as a pre-condition for availing signals under RIO, should not be allowed under the Regulation however discount within the caps based on subscriber number or platform size should not be consider as minimum subscriber guarantee.

Issue No. 11

Minimum Technical Specifications

a) Whether the technical specifications indicated in the existing regulations of 2012 are adequate?

The technical specifications indicated in the existing regulation of 2012 are inadequate as these have been reproduced from the Telecommunication (Broadcasting and cable service) Interconnection (Second Amendment) Regulation, 2006 (9 of 2006), which is outdated and have not kept pace with the ever evolving technological environment. Hence these need to be updated to prevent piracy of content. Further these specification needs to be reviewed every 2 years by the Authority.

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?

The requirements of CAS, SMS, fingerprinting and STBs as detailed in Schedule I of Interconnection regulation 2012 requires following changes:

Clause. No.	Present provision	Updates/Changes	Justification
(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.	The CAS vendor should provide a declaration confirming that their product complies with this requirement and should be signed by MD / CFO of the CAS vendor. However, in the event of any incident of default, the broadcasters should be exempted from "Must provide" provision.	To strengthen the existing requirements under the Regulation and further to provide a commercial deterrent to prevent implementation of substandard CAS systems.
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.	The SMS and CA should be integrated for activation and deactivation process. Activation and deactivation command should flow from SMS to CAS. Further, both the CAS and SMS system should be independently capable of generating log of all activation and deactivations for the past 2 years. However, in any event of default, the DPO's registration and license	The original clause is ambiguous. It has led to many disputes during commercial audits. Further, log of all activations & deactivations are required from SMS as well, for comparison with same logs of CAS to ensure there is no under-reporting of subscribers by the DPO.

Clause. No.	Present provision	Updates/Changes	Justification
		should be revoked.	
5	The CA company should be known to have capability of upgrading the CA in case of a known incidence of the hacking.	The CAS vendor should provide a declaration confirming that their product complies with this requirement and should be signed by MD / CFO of the CAS vendor. However, in the event of any incident of default, the broadcasters should be exempted from "Must provide" provision.	To strengthen the existing requirements under Regulation and further to provide a commercial deterrent to prevent implementation of substandard CAS systems.
11	The CAS system provider should be able to provide monthly log of the activations on a particular channel or on the particular package.	The Regulation should be amended to include a requirement to have capability to provide monthly transaction logs from CAS for a historical period up to 2 years. The CAS vendor should provide a declaration confirming that their product complies with this requirement and should be signed by MD / CFO of the CAS vendor. Moreover, in the event of default, the broadcasters should be exempted from "Must provide" provision. Moreover, in any event of default, the DPO's registration and license should be revoked.	The DPOs cite ambiguity in the current regulation language to deny logs.
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.	The CAS vendor should provide a declaration confirming that their product complies with this requirement and should be signed by MD / CFO of the CAS vendor. However, in the event of any incident of default, the SMS and CAS vendor should be black listed.	To strengthen the existing requirements under regulation and further to provide a commercial deterrent to prevent implementation of substandard CAS systems.
New	New Clause required	The CAS and SMS should have audit log/trail of every transaction done in the	This is required to identify if any changes have been made to the logs with

Clause. No.	Present provision	Updates/Changes	Justification
		SMS & CAS system similar to that available in banking transaction systems.	date, time and user id stamp.
New	New Clause required	DPOs to provide declaration of all CAS and SMS used for provision of services. In case of misleading declaration or under declaration, the DPOs registration and license should be revoked and a penalty of 200% of monthly subscription fee as calculated after taking the inconsistency into account should be levied.	To increase transparency and increasing tax base
(B) Fingerprinting:			
5	The location of the Finger printing should be changeable from the Headend and should be random on the viewing device.	The Fingerprint should have at least 4 options in text size, text colour & background box colours.	Pirates use "logo tracker" software to cover the Fingerprinting. These colour options defeat the piracy software.
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.	On-Screen-Scroll (OSS) messaging should be available in the lower third of the screen.	Since OSD is barred by TRAI, OSS should be made mandatory.
10	The STB should have a provision that OSD is never disabled.	The STB should have a provision that OSS is never disabled.	Replacement of requirement.
(C) Set Top Box (STB):			
8	The STB should have forced messaging capability.	The STB should have forced messaging capability to display Fingerprint	In cases where normal fingerprinting in STBs is compromised, this is an alternative method to get the Fingerprint displayed
9	The STB must be BIS compliant.	The applicable BIS nos. is required to be mentioned.	Specific IS nos. are required to avoid any ambiguity
New	New clause required	The composite and component video outputs of the STBs should be copy protected by Macro Vision 7 or better standard. The digital video outputs of the STB should be copy	To comply with broadcaster's contractual obligation to content owners. These copyright protocols deter copying content from STBs for re-distribution.

Clause. No.	Present provision	Updates/Changes	Justification
		protected by HDCP and DTCP protocols or better standards.	
New	New Clause required	Upon the de-Registration of any Set-Top Box from a Subscriber Account, all programme/content on that Set-top Box shall be immediately deleted or rendered un-viewable and shall also not be made available on any Internet Device.	
New	New Clause required	A Subscriber that is entitled to receive programme/content in HD or SD shall receive such programme/content only on the Set-Top Boxes that are Registered to that Subscriber Account.	
New	New Clause required	All transmissions via Encrypted Delivery shall be encrypted and protected with an applicable security, and each Set-Top Box shall employ an industry standard conditional access system for hardware set-top boxes to protect the programme/content from unauthorized access, use and distribution and to meet the requirements herein, including the Usage Rules, provided that such system has DVB-CSA or AES 128 or greater encryption (or the equivalent encryption standard required by Indian law or regulations)	
New	New Clause required	With respect to delivery to Set-Top Boxes, DPOs shall check a Subscriber's residential address and billing address to ensure that neither is outside of the Territory. If either is	

Clause. No.	Present provision	Updates/Changes	Justification
		identified as being outside of the Territory, then the Subscriber shall not be allowed to subscribe.	

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?

Yes, it should be type approved for compliance with TRAI Regulations as updated in the manner suggested above before its deployment. Broadcast Engineering Consultants India Limited (BECIL), Department of Electronics and Information Technology (DEITY) or any other similar reputed entity can be mandated for such type approval.

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.

Yes, blacklisting provision should be part of the Regulation. Blacklisting can be on account of following reasons:

- If the SMS and CAS is not type approved and non-compliant with TRAI guidelines
- If the architecture/ software of SMS and CAS installed by the DPO allows manipulation in subscribers, channel, package, and entitlement data & reports etc.

Issue No. 12

Technical Audit of Addressable Systems

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

No, even if SMS and CAS are type approved it is necessary to ascertain whether the SMS and CAS are installed correctly and are functioning as per regulatory technical requirements

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?

No, since there is no specified standard of setting up a DPO network and there are lot of ad-hoc solution implemented, technical audit of broadcaster checks not only the standalone CAS and SMS but also its integration and its operational implementation including encryption in the transport stream along with Antipiracy features implementation.

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?

The existing regulatory provisions which require the addressable system of DPOs seeking interconnection wit broadcasters in terms of their RIO shall ensure that the addressable system used shall satisfy the minimum specification as specified in the TRAI Regulations should be continued. Further as prevailing broadcaster should be allowed to conduct a technical to satisfy them that the addressable system is fully compliant of the Regulations. In case of dispute the DPOs should get the addressable system certified by BECIL or any other technical auditors empanelled or authorised by the Authority.

In order to prevent delay for provisioning of signals the Authority must authorised other reputed technical consultant like BECIL to certify the addressable system. All this should be completed within the 60 day period as contemplated under the Regulation.

d) Whether the technical audit methodology prescribed in the regulations needs a review? If yes, kindly suggest alternate methodology.

The minimum specification as contemplated under the Regulation is limited only to CAS, SMS, fingerprinting and STBs. In addition to upgrading these parameters to bring it in line with evolving technological advancements, it also equally important to allow broadcasters to seek detailed network diagram of the DPOs network. Further it is necessary to allow verification through field audit as the DPOs network extends from the control room to the service areas. Confining the audit to only the head-ends / control room without corresponding field audit may result in manipulation of the systems by the DPOs or their LCOs. The scope of field audit should mandatorily include Transport Stream (TS) recording as well as verification of system data through collection of STB and VC cards from the field.

e) Whether a panel of auditors on behalf of all broadcasters be mandated or enabled? What could be the mechanism?

At the outset it is important to highlight apart from technical Audit of the addressable system before provisioning of signals, there is a need for both commercial and Technical audits on an on-going basis to ensure compliance of the regulatory and contractual obligations by the DPOs. In order to effectively undertake this process without any undue hardship to the DPOs, we recommend a panel of auditors who will represent the broadcasters under the aegis of Indian Broadcasting Foundation ("IBF").

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?

Yes, in case of manipulation of subscriber reports, stringent actions like suspension/revocation of DPO license/registration and blacklisting, penal charges of 200% of monthly subscription fee in addition to the regular monthly fee on the DPOs should be clearly specified as part of TRAI Regulations.

In case of offending SMS & CAS vendors there should be blacklisted and prohibited from provisioning any and all DPOs and a hefty fine should be prescribed.

Issue No. 13

Subscription details

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.

Subscriber reports are sought by the broadcasters broadly for two reasons (a) Calculation of license fee as per interconnect agreement, and (b) to understand reach and demand for their respective channels. Hence it is difficult to formulate a common subscription report in the Regulation as every broadcaster has its unique RIO and incentive structure; no single format can contemplate all possible combinations. Calculation of incentives and discounts are essentially very complex in nature and may entail specified requirements peculiar to their needs. Moreover, additional parameter may also become necessary to understand demand and reach for the channels.

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?

The current system of computing subscriber number is not adequate since it is based on average monthly subscriber numbers and does not take into account activations and deactivations during the month which leaves huge scope for misuse and manipulation of data. For example DPOs can temporarily switch off subscribers just before midnight of last day of the month to understate the average subscriber count hence it is important to capture subscriber numbers on a daily basis during primetime (say at 9:00 PM) to avoid possibility of manipulation.

c) Whether the subscription audit methodology prescribed in the regulations needs a review?

Yes, the methodology needs the following changes:

- Audit notice period of 10 days to be prescribed in the Regulations.
- The Authority should notify standard scope of commercial and technical audit. A recommended model detailing scope of audit is attached herewith as **Annexure A.**
- Current Regulations allowing for only two audits a year should be amended to 4 audits a year.

d) Whether a common auditor on behalf of all broadcasters be mandated or enabled? What could be the mechanism?

Yes, as has been explained above, common auditors through empanelment by the industry body IBF may be enabled. Firms/companies with knowledge of audit and expertise in broadcasting should be appointed in the panel per prescribed guidelines. IBF should be requested to provide detailed process and mechanism.

e) What could be the compensation mechanism for delay in making available subscription figures?

Any delay in providing subscription report affects the timing of billing by the broadcasters. This in turn has an impact on its cash flow. Delayed reports and/or non-provision of reports should be treated at par with non-payment of subscription charges.

Such operators should be prohibited from claiming signals under the “Must Provide” regime. Also, penal charges of 200% of monthly subscription fee in addition to the regular monthly fee on the

DPOs should be clearly specified as part of TRAI Regulations. Two defaults of non-provision of subscriber reports within any interconnect agreement term should be penalised through a mandatory mechanism requiring suspension of DPO license.

f) What could the penal mechanism for difference be in audited and reported subscription figures?

DPO should be mandated to pay for the difference along with penalty up to 200% of the difference amount further they should be denied the safeguard of the Must Provide provisions.

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

No, due to commercial confidentiality requirements and given that variety of systems are used, developing a common third party system for subscribers reports generation is not practical.

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

Audit is an independent exercise which is conducted to check compliance of contractual and regulatory obligations by the DPO's. Hence, the payment of audit fee must be independent of the outcome of the audit to promote a fair and impartial assessment of state of affairs. As it has been proposed above that the empanelment of auditors should be done by the broadcaster body IBF and the broadcasters should collectively contribute towards the functioning of the audit panel as per set guidelines. However, in the event the audit results of any DPO shows under-reporting of subscriber numbers or deficiencies on technical requirements, a deterrent penalty should be imposed on the DPO in addition to recovery of the under-reported subscription fees.

Issue No. 14

Disconnection of Signals of TV Channels

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?

The present notice period of 21 days should be brought down to 7 days as we strongly believe that the proposed 7 day period is adequate for subscribers to make alternative arrangements.

However, the notice period in case of disconnection for piracy should be not more than 2 hours in case of a channel showing live events and 2 days for channels exhibiting non-live events. Piracy is akin to theft and hence, no indulgence whatsoever should be given. In order to prevent any misuse of these provisions by any Broadcaster financial disincentives must be imposed on such Broadcasters who misuse the provisions.

Issue No. 15

Publication of on screen display for issue of notice for Disconnection of TV signals

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?

Yes, full screen OSDs should be prohibited. Scroll is an effective tool for communication and should be allowed by the Regulation. It is the most cost effective and targeted medium to communicate with subscribers.

While running scrolls broadcasters should ensure that it should not affect consumer experience of watching television. Following reasonable conditions should be prescribed for running the Scrolls that:-

- It should remain on lower third of the screen, and
- It should not hide or tamper broadcaster's channel(s) logo

Scrolls undoubtedly have greater visibility and resonance with viewers and hence can serve the intended purpose better than the newspaper notices. In case any aggrieved party wishes to approach the courts or the tribunal against such scroll it can very well do so by producing a recording of the scroll being run on the channel(s).

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?

Yes, the methodology requires the following modification:-

- Broadcasters should continue to give notice to DPOs; similarly DPOs to give notice to broadcaster before disconnection.
- The notice period shall be as proposed above.

The onus of informing the disconnection to consumers should rest on the service provider initiating disconnection. However in the event the Authority allows doing away with the requirement of Public Notice as has been recommended below then the broadcasters should only be allowed to communicate with the viewers by way of a scroll and the DPOs should not be allowed to tamper with the broadcaster's channel transmission.

c) Whether requirement for publication of notices for disconnection in the newspapers may be dropped?

Yes, requirement of publication of notices through newspaper should be dropped because of following reasons:

- The cost of issuing notice is never compensated for by the defaulting service provider.
- Costs incurred on these public notices runs into crores on a year on year basis.
- Can easily escape the attention of the subscribers.
- On screen scroll serves the intended purpose.

Issue No. 16

Prohibition of DPO as agent of broadcasters

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?

Yes, there should be prohibition on appointment of a DPO as an agent of the broadcaster for distribution of signals as it will be detrimental to the interest of other DPOs and broadcasters and can lead to conflict of interest and anti-competitive practice in the market.

INTERCONNECTION BETWEEN MSO/HITS/IPTV OPERATOR AND LCO

Introduction

In the last decade we have seen a plethora of litigation in the TDSAT. If one were to analyse these disputes it would be evident that less one per cent related to disputes between Broadcasters and DTH. The bulk of the disputes have been between MSOs and Broadcasters and Local Cable Operators (LCOs) and MSOs.

The poor economics of the MSO's business model is at the heart of this proliferation of disputes. Despite digitization the consumers have been unable to enjoy the benefits of digitization and the broadcasters continue to be deprived of their legitimate share of ground subscription collections. This is directly attributable to the lack of transparency and non-discrimination in deals amongst MSOs and LCO's coupled with non-implementation and continued violation of the DACS Regulations at both MSO and LCO level. Resultantly, MSO's have failed to create a robust pay TV economics by implementing billing, packaging etc. and continue to be dependent on carriage as their main source of income.

In the light of the above, the TRAI should utilize this opportunity to ensure that the problems endemic in the MSO's business models are finally taken care of and fix what is essentially broken rather than re-inventing the wheel by subjecting broadcasters to another set of retrograde the Regulations that would serve no purpose.

Issue No. 17

Interconnection between HITS/IPTV operator and LCO

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.

We support this proposal as there is no reason to differentiate among platforms. However, there has to be room for negotiations between parties, and the framework should kick in only when there is a break down in the negotiations. All negotiated contracts should have the Model Interconnection Agreement ("MIA") and Standard Interconnection Agreement ("SIA") as the basis.

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

We reiterate our response to issue no. 17 (a) above. However, as stated in our preamble before, lack of transparency has been the bane in the value chain and while broadcasters have been conducting audits of MSOs, yet there has never been any industry practice of MSOs auditing LCOs. We recommend that the audit guidelines proposed for conducting audits of MSOs be also adopted for LCO audits by MSOs with necessary changes. The same is required to determine whether:

i. LCOs have been running any unencrypted feed.
ii. LCOs have been retransmitting channels end to end in encrypted mode without alteration from the MSO.
iii. Whether LCOs have set up parallel head ends without taking license from the Ministry.
iv. LCOs have been generating encrypted channels of their own and running content of broadcasters and MSOs circumventing the existing retransmission set up.
v. LCOs have been transparently collecting subscriptions from the ground.
vi. LCOs have parallel feeds from multiple operators and thereby under report subscribers or switch over to other operator post default.
vii. LCOs are complying with QOS regulations, Interconnect regulations, and other applicable laws and also the terms and conditions of the contracts or MIA or SIA between MSOs and LCOs.

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

MSOs, HITS, IPTV Operators should publish their offers in the public domain.

All contracts executed by such DPOs should have their published offers i.e., the MIA and SIA as their starting point.

All terms and conditions entered into by and between the operators should be captured in one document itself.

All contracts should be filed with the Authority and anybody desirous of having access to such arrangements should make an application to the Authority stating the reason why it wishes to gain such information. However only licensed service providers should be able to access these documents and it should not be made available to the general public at large.

The Authority should act on the application in a time bound manner (say three weeks) after applying its mind on the application. It should allow or deny access only after giving sufficient reasons.

Parties who gain access should be bound by confidentiality and any violation on their part should be visited with penal consequences.

Issue No. 18

Time period for providing signals of TV channels

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.**

The existing time periods should continue, however the clauses pertaining to contract renewals should apply between LCOs and MSOs as well so that LCOs do not retransmit without a valid agreement with an MSO.

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.**

The time period of 30 days is working fine.

Issue No. 19

Revenue share between HITS/IPTV operator and LCO

a) **Whether the Authority should prescribe a fall back arrangement between HITS/IPTV operator and LCO similar to the framework prescribed in DAS?**

Yes, we support this proposal.

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?**

LCOs should only earn a nominal commission for the services of ground collection that they provide. They should also be remunerated by way of a fixed fee for any obligations which they undertake with regard to the quality of service regulations or the contractual terms agreed with the MSO and also last mile servicing of the consumers if done on a non-chargeable basis. If however the same is on a chargeable basis the same should be shared equally between MSOs and LCOs.

Issue No. 20

No-dues certificates

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?**

Such No Dues certificate should be issued within a fortnight on demand and should also be a prerequisite documentation for availing signals under the Must provide mandate.

Also details of dues should be given within a period of seven (7) days of request with necessary details of dues being shown against each month separately for absolute clarity with regards to the outstanding amount on a particular date.

Issue No. 21

Providing signals to new MSOs

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?

Yes, this is necessary to ensure hygiene across the value chain.

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?

Yes, it does not matter whether an operator has defaulted vis a vis a particular service provider. Once an operator has defaulted there is no reason whatsoever for the said operator to avail a regulatory privilege as must Provide. It is submitted that the Must Provide is a significant right that has been granted to the operator. In order to avail or exercise that right, the operator must also display unimpeachable conduct failing which there should be a threshold bar for him to avail the benefit of Must Provide. If the new MSO has an old outstanding due and payable to the last MSO to whom it was affiliated, such new MSO has to be treated as a defaulter by the broadcaster and signals to the new MSO should be denied on the ground of outstanding payment.

Issue No. 22

Swapping of Set Top Box

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?

Yes, it is necessary that hygiene should be inbuilt across the entire value chain and defaulters should be debarred from availing regulatory provisions that seek to benefit them. In all other industries, defaulters are treated with caution. For example in the banking industry once a borrower is a defaulter, no other financial institutions would be willing to finance such a person and there is no Must Provide regulation that requires Banks to provide finance to such recalcitrant elements though the Banking industry is admittedly regulated. If this is not done, the industry will be reeling under heavy bad debts that will not augur well for it's over all health.

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

For the same reasons as stated in Issue no 22 (a) supra we believe that it should be mandatory for the LCOs to provide copy of last invoice/ receipts from the last affiliated MSOs.

This will help addressing issues pertaining to LCOs replacing the STBs at the subscriber's premises with the STBs of another MSO without the written consent of subscribers and also without clearing previous dues. Such swapping of STBs without following proper procedure for filling of any subscriber surrender forms has resulted in huge revenue losses to the past affiliated MSO of the LCO. Hence our above recommendation will reduce losses for the MSO as well as make the LCOs more accountable and would also ensure that LCO movement from MSO to another MSO is monitored with proper checks and balances.

ANNEXURE A

SCOPE OF AUDIT

I. **Head End Audit:** MSO should provide Complete Accurate Schematic Diagram of their Head End, Earth Stations, Systems and Processes for Audit and Auditing Purpose.

- MSO to submit & confirm the no. of MUX's (Multiplexer Units) installed with active TS (Transport Stream) outputs. This should include physical audit of head end, earth station and analysis of TS stream from the Mux.
- All TS from MUX should be encrypted for the territory.
- MSO to ensure that his Network Watermark logo is inserted on all Pay Channels at encoder end only.
- All Pay Channels IRDs to be provided to MSO's by Company should have SDI/Composite/ SDI output only. Company should not give IRDs with ASI/IP output or CAM Module.

II. **CAS Audit:** MSO to provide all below information correctly: Make & version of CAS installed at Head End.

- CA system certificate to be provided by MSO.
- CAS version installed should not have any history of hacking, certificate from CAS vendor required.
- CAS system should support at least 1 million subscribers. CAS vendor should provide certificate.
- CAS should be able to generate log of all activities i.e. activation/deactivation/FP/OSD.
- CAS should be able to generate active/deactivate report Channel wise or Bouquet / Subscriber Package-wise.
- STB's & cards to be uniquely paired from MSO before distributing box down the line.
- MSO to declare by undertaking the no of encryptions CAS/SMS he is using at the head end and in future if he is integrating any additional CAS/SMS same should be notified to the Company by means of a fresh undertaking.
- Reconciliation of CAS database (active cards, service wise and Bouquet / Subscriber Package-wise) with SMS database to be provided by MSO. CAS vendor required to certified reconciliation of data.
- No activation / deactivation from direct CAS system, it must be routed via SMS client only.
- MSO should provide CAS vendor certified copies of active/deactivate channel wise/product wise report &Bouquet/Subscriber Package/ product report during audit period.
- CA system should have the capability of providing history of all actions taken for last 2 years.

III. **SMS Audit:** All product authorization must be from SMS only.

- SMS and CAS should be fully integrated.
- The SMS should be computerized and capable to record the vital information and data concerning the subscribers such as:
    - Unique Customer Id
    - Subscription Contract number
    - Name of the subscriber
    - Billing Address
    - Installation Address
    - Landline telephone number
    - Mobile telephone number
    - Email id
    - A – la carte Channels or Bouquet / Subscriber Package subscribed to
    - Unique STB Number
    - Unique VC Number
- The SMS should be able to undertake the viewing and printing historical data in terms of the activations, deactivations etc.
- Location of each and every set top box VC unit
- The SMS should be capable of giving the reporting at any desired time about:
    - The total no subscribers authorized
    - The total no of subscribers on the network
    - The total no of subscribers subscribing to a particular service at any particular date.
    - The details of channels opted by subscriber on A-la-carte basis.
    - The Bouquet / Subscriber Package wise details of the channels in the Bouquet / Subscriber Package.
    - The Bouquet / Subscriber Package wise subscriber numbers.
    - The ageing of the subscriber on the particular channel or Bouquet / Subscriber Package
    - The history of all the above mentioned data for the period of the last 2 years

1. Following parameter should be validated during the audit
    i. Review Complete Network Diagram
    ii. Undertaking from Operators for all SMS and CAS installed at Head end – issue of Multiple CAS / SMS
    iii. Certificate from CAS provider for details of CA ID, Service ID, N/w ID, version and no. of instances installed. Also confirmation with respect to history of hacking
    iv. Check the number of MUX's installed with active TS outputs. Also whether all TS from MUX are encrypted for non DAS & DAS area.
    v. Review whether Live diagram / fiber details of network are captured in SMS system
    vi. To check if MSO specific coding / ID is available for Finger Printing
    vii. Confirm whether watermarking network logo for all pay channels are inserted at encoder end only
    viii. Review the controls deployed to ensure integrity and reliability of the reports such as logs, access controls, time stamp etc.

ix. Review the Subscriber parameters which are captured in the SMS and validate if following parameters are present for subscriber
   - Unique Subscriber ID
   - Subscriber Contract Details – No, Term, Date, Name, Address & contact details
   - Hardware details

x. Review the subscribers activation/ de-activation history in the SMS system

xi. Validate if the SMS is integrated with CAS.

xii. Review if all the active and de-active STBs are synchronized in both SMS and CAS.

xiii. Validate if independent logs/report can be generation for active and de-active VCs with the product/channels active in both SMS & CAS.

xiv. Review if the system support the Finger Printing and OSD features at Box level, Customer account level as well as Global level.

xv. Validate if all the STBs are individually addressable from the System and are paired with the viewing cards.

xvi. Review the Electronic Programming Guide to check LCN/CDN and genre of all Channels

xvii. Review the various packages programmed in the Systems with respect to the subscriber reports submitted to the Company/ Aggregators.

xviii. Extraction and Examination of System Generated reports, statistics, data bases, etc. pertaining to the various Bouquets, Subscriber Package, Channel availability, bouquet / Subscriber Package composition, rates,

xix. Review of the following reports is supported by SMS and CAS.
   a. Total no of Subscribers – active & de-active separately
   b. De-active subscribers with ageing
   c. Channel wise Subscribers - total
   d. Channel wise Subscribers – split by Bouquet / Subscriber Package
   e. Revenue by Bouquet, Subscriber Package or A-la-carte Channel
   f. Subscriber/Revenue Reports by State/City
   g. No of Bouquets / Subscriber Package offered
   h. List of Channels / rates of each Bouquet / Subscriber Package
   i. Rate Card Options offered / Attached with active Subscribers
   j. Historical data reports
   k. Free / demo Subscribers details
   l. Exception cases – active only in SMS or CAS

IV. STB Audit: All STB should be individually paired in advance with unique smart card at central warehouse of MSO before handing down the line distribution.

- MSO to provide details of manufacturers of STB are being used / to be used by him (OS/Software, memory capacity, zapping time). All STBs must be secure chipset with chipset pairing mandatory.
- MSO should provide one set of all type/model of boxes for testing and monitoring purpose.
- All STBs used by MSO's should be certified by their CAS vendor.
- Forensic watermarking to be implemented on the MSO headend & STBs.

- ECM/EMM base Forced messaging full screen and ticker mode should be available.
- All the STBs should have embedded Conditional Access.
- The STB should be capable of doing Finger printing. The STB should support both Entitlement Control Message (ECM) & Entitlement Management Message (EMM) based fingerprinting.
- The STB should be individually addressable from the Head end.
- The messaging character length should be minimum of 120 characters.
- There should be provision for the global messaging, group messaging and the individual STB messaging.
- The STB should have forced messaging capability.
- The STB must be BIS compliant.
- The STB must have secure chip set with mandatory pairing.
- There should be a system in place to secure content between decryption & decompression within the STB.
- The STBs should be addressable over the air to facilitate Over The Air (OTA) software upgrade.
- The STB outputs should have the following copy protections
    i. Macro vision 7 or similar or better on Composite video output.
    ii. Macro vision 7 or similar or better on the Component Video output.
    iii. HDCP or similar or better copy protection on the HDMI & DVI output.
    iv. DTCP or similar or better copy protection on the IP, USB, 1394 ports or any applicable output ports.
- Types of boxes launched / to be launched:
    - Vanilla STB
    - DVR STB
    - Others (please specify)
- Please furnish STB details as following:
    - Open Standards or Proprietary?
    - Audio Video and Data I/O Configuration?
    - Local Storage?
    - Smarts Card?
    - PVR Functionality?
    - Tamper Resistance?
    - I/O Copy Protection? Please provide the details.
    - I/O Interface to Other Devices?
- Are the STB's interoperable?
- DVR / PVR STB should be compliance of following;
    - Content should get recorded along with FP/watermarking/OSD & also should display live FP during play out.
    - Recorded content should be encrypted & not play on any other devices.
    - Content should get record along with entitlements and play out only if current entitlement of that channel is active.
    - User should not have access to install third party application/software.
- Does the Set Top Box support any type of interactive middleware? Please describe.

V. Distribution Network Audit: MSO should provide below information in detail:

- Fiber network and PIT information on Geo Map.
- Service area to be defined.

VI. Anti-Piracy Measure: Use of any device or software should not invalidate the fingerprinting.

- The OVERT Finger Printing should not be removable by pressing any key from the remote.
- The OVERT Finger printing should be on the top most layer of the video.
- The Finger printing should be such that it can identify the unique STB number or the unique Viewing Card (VC) number.
- The Finger printing should appear on all the screens of the STB, such as Menu, EPG etc.
- The location of the Finger printing should be changeable from the Head end and should be random on the viewing device.
- The Finger printing should be possible on global as well as on the individual STB basis.
- The Overt finger printing and On screen display (OSD) messages of the respective Company should be displayed by the MSO without any alteration with regard to the time, location, duration and frequency.
- Covert finger printing should be available.
- No common interface Customer Premises Equipment (CPE) to be used.
- The STB should have a provision that OSD is never disabled.

VII. Commercial Audit*

1. Provide system generated Channel-wise and Bouquet / Subscriber Package-wise reports of channels for the platform in a non-editable format.
2. Understand/ Verify the Customer Life Cycle Management process by performing a walkthrough of the following processes and their underlying systems
   - Customer acquisition
   - Provisioning of the subscriber in authentication, billing and SMS system
   - Bouquet / Subscriber Package change request process
   - Customer Retention process, if any
   - Deactivation and churn process
3. Understand/ Verify the various Bouquets / Subscriber Package being offered to customers
   - Obtain details of all approved Bouquets / Subscriber Package and add on which are being offered to customers
   - Interactions with the Operator's marketing and sales team on how the various channels are being marketed
   - Any special marketing schemes or promotions
   - Details of the consumers subscribing to the various Bouquets / Subscriber Package, including 'demo'/ free/ complimentary/ testing/ promotional subscribers
4. Understand the declaration report generation process by performing a walkthrough of processes and underlying systems (to understand completeness and accuracy of subscriber report generation process):
   - Generation of reports for subscriber declaration for Channels or Bouquets / Subscriber Package
   - Any reconciliations / checks /adjustments carried out before sending the declarations
5. Analyze declaration reports on a sample basis:

- Reconciling the declaration figures with base data from various systems (SMS / Provisioning / Billing and Authentication systems)
- Analyze the computation of average subscribers
- Ascertain the average subscribers for a specific period on a sample basis by generating a sample report for a given period in the presence of the representative/auditors

6. Analysis of the following - :
    - Input and change controls of customer data into SMS
    - SMS user access controls – authentication, authorization and logging
    - Analyze system logs to identify any significant changes or trail of changes made
    - Security controls over key databases and systems including not limiting to SMS, Provisioning, authentication and billing systems
    - Review the system logic for the reports which are inputs to Broadcaster declarations
    - Channel allocation/fixation to a particular LCN/CDN
    - Mapping of subscriber id across the CRM and SMS billing system if the same is different across the systems
    - Sample of activation and deactivation request logs
    - Opening and closing numbers of the active subscribers for sample months (report to be taken in front of the auditors/ rep)
    - Confirmation of the numbers on the middle of the month on a random chosen dates (report to be taken in front of the auditors/ representatives of both parties)
    - Live Demo of the queries being put in to the system to generate different reports.
    - List of CAS and SMS used by Operator in DAS area. In case more than one CAS and SMS system is used by Operator for both DAS and non-DAS areas, then understand and analyze how the two markets are segregated, controlled, reported and invoiced
    - Similarly, list of head-ends of the operator providing services to both DAS and non-DAS areas and for such head-ends, understand and analyze how the two markets are segregated, controlled, reported and invoiced.

In case of multiple CAS being used by MSO, to understand synchronization between multiple CAS and SMS.

*****