INTERCONNECTION FRAME WORK FOR BROADCASTING TV SERVICES TYHROUGH ADDRESSABLE SYSTEMS

Lt Col VC Khare (Retd) Cable TV Industry Observer

Observations on Contents in Consultation Paper

- 1. Cable TV services are NOT accorded status of Broadcasting (despite being point to multi point, multi-program-multi channel i.e. 106 channels in 47-862 MHz RF band and addressable over WIRED medium)
- 2. All communication on this subject boasts of 'FOR THE BENEFIT OF THE SUBSCRIBER' and non-discriminatory in principle. The reality is different.
- 3. The regulatory frame work existing is more used in adjudication than business simplification and serving the end subscriber.
- 4. At present there are entities in the Subscriber Management System (SMS):-
 - (a) Broadcaster
 - (b) Headend Service Provider(HSP) registered with MIB.
 - (c) Cable Operator(CO) registered with Deptt of Posts NOT performing any functions of Headend.
 - (d) Subscriber
 - (e) Revenue Authorities i.e. the Government.
- 5. These entities are deemed to be inter-connected by means of distinct IDs in SMS through:-
 - (a) B2B Agreement i.e. BROADCASTER & HSP
 - (b) B2C Agreement SAF(Subscriber Application Form) i.e. HSP & Subscriber
 - (c) B2B Agreement HSP & CO
 - (d) Tax Administration Authorities.
- 6. No real time and visible/perceivable enforcement mechanism is visible to a Subscriber on any of the above arrangements.

- 7. In 2004, with the then definition of PAY TV content, as one for which subscriber had to pay to the Broadcaster, suggested drafts for ICOs were drafted by TRAI for Broadcaster & HSP and HSP and CO. The issue of terms and conditions for Subscriber did not arise because the flow of revenue started from Subscriber and ended with Broadcaster with prescribed appropriations for CO, HSP and Broadcaster.
- 8. In 2012, however, neither standard SAF nor ICO HSP & CO were drafted because definition of PAY TV changed to 'Content for which HSP pays to Broadcaster'.
- 9. The entire regulatory process seemed to be aiming at revealing and enhancing true subscriber connectivity eliminating alleged under declaration of the same by COs and in turn by HSPs resulting in loss of rightful revenue to Broadcaster and Taxation Authorities.
- 10. Cable TV Networking has been a technology entrant by stealth, wherein practice preceded legislation, in that it was TOTAL private enterprise, without a penny from Govt treasury, galloping growth leading to legislation after about 10 years in 1994. While Cable TV Act enactment legalised this occupation, real service providers to subscribers, i.e. COs, remained unorganised and NOT adequately skilled technically and mangerialy, to deliver QoE(Quality of Experience) measured against prescribed QoS drafted by TRAI. Even TRAI, as regulator appeared 10 years after legislation.
- 11. When it came to technical scrutiny and management, most people in TRAI, MIB and BECIL, did NOT have hands on experience in design, installation and commissioning of addressable TV multi program, multi channel wireline broadcasting since they come from Govt Employment where these practice did NOT exist.
- 12. Due to indifferently designed and erected networks, all programs transported did NOT give equal audio and video clarity at the farthest point in the wireline networks(due to lack of knowledge on SKIN EFFECT in coaxial cables requiring equalization and calculated amplifier spacing). Since advertising revenue forms a substantial part of revenue, Broadcasters earning advertisement revenue required eye-ball access in their programs. Cable Networks had varying percentages of clarity in picture quality seldom exceeding 4 on a 0-5 subjective scale. Over 60% channels remained at 3. Hence emerged the phenomenon of CARRIAGE FEE charging by HSPs to counter arbitrary increases in PAY TV revenue by Broadcasters. In any case the basis for pricing of PAY TV content has till date NOT revealed by Broadcasters.
- 13. Even the much well intended DAS implementation is NOT, in letter and spirit of the statute, in that :-
 - (a) Analog Transmission is supposed to demise.

- (b) Progress is reckoned only on integration of numbers of STBs reported seeded by HSPs irrespective of their conformity to Standards or compliance of SMS.
- 14. There appears no concern about :-
 - (a) Subscribers shown rate cards compiled by HSPs reflecting 'a-la-carte' and bouquet rates for FTA and PAY TV content for selection and ordering.
 - (b) Issue of f itemized bills showing:-
 - (i) Subscriber ID.
 - (ii) STB Ser No and Viewing Card No
 - (iii)CO ID
 - (iv)Itemized charges description as ONE the BST, TWO FTA over and above BST,THREE PAY TV 'a-la-carte', FOUR PAY TV Bouquet, FIVE STB provisioning charges if any, SIX any other charges, SEVEN Entertainment Tax, EIGHT Service Tax totalling up to amount billed for the subscriber.
- 15. While digitalization aimed at enhancing compressed programs carrying capacity in 106 carrier channels, many write ups continue commenting upon non-addressable regimes too.
- 16. IPTV, so far, has remained confined to TELCOs since it essentially requires bidirectionality to give real time experience (most CATV networks are uni-directional) to demand content from Central Office due to technological differences. In any case TELCOS do NOT operate under MIB.
- 17. HITS is supposed to be regulated under DAS because earth station, like any DAS Headend driving distribution, partly in wireless and partly wireline regime.
- 18. One issue of arm twisting of HSPs by Broadcaster is the bogey of piracy. The manner of piracy allegation and investigation is arbitrary and not standardized. Broadcasters with better organization and strong financial muscle bully comparatively weaker HSPs. BECIL, being part of Govt, the sole agency nominated by TRAI, so far, do NOT seem to have hands on experienced staff for scrutiny of alleged piracy in depth. Neither MIB nor TRAI have taken any steps to develop piracy inspectors and auditors like CAs in Financial Institutions.
- 19. DAS at Broadcaster's end should mandate only 'a-la-carte' in B2B ICO with HSP to be billed on average number of subscriber's STBs authorized to watch their content in the SMS.

- 20. HSP has to prepare rate card payable by subscriber with cost of content by Broadcaster PLUS expenses and reasonable profit, including but NOT limited to share of CO.
- 21. This lengthy consultation paper gives an impression that present B&CS team at TRAI, seemingly unaware of harsh ground realities, wishes to provoke updates on the confused implementation of DAS. It is a sad paradox that DAS legislated for benefit of Subscriber is NOT known to them and their immediate service providers, about 60000 COs, would neither read nor understand the issues to fruitfully respond. Responses would, therefore, come from DTH Operators(A pre-paid addressable service), National MSOs with a battery of lawyers on their rolls, Some trade journals and consumer activists and one or two individuals.
- 22. It must be understood that service is to be provided to subscriber, through technicians of COs, to the subscribers. There are no minimum qualifications prescribed to became a CO for a Cable Network technician except rudimentary literacy. There is no facility created for upskilling this segment. It might be revealing if academic and vocational qualification details of just about 1000 persons from this segment is gathered and analysed. It is evident from resistance to establishment of SMS in DAS implementation. COs are reluctant to reveal true connectivity, do NOT deliver itemized bills to subscribers, pay earlier agreed amounts to HSPs and want fixed monthly subscription based delivery of all TV content transmitted from Headend.

COMMENTS ON ISSUES FOIR CONSULTATION

23. 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?

It is surprising that after nearly 5 years of DAS statute we are still mentioning non-addressable systems. B2B Broadcaster & HSP ICO should be mandated for broadcasting of Broadcaster's TV content over wireline networks on 'a-la-carte' basis only, strictly prohibiting bundling of content in the ICO, to form wholesale rate from the HSP on the basis of Broadcaster's report to be generated in the SMS. Next rate card prepared by HSP reflecting 'a-la-carte' and bouquet rates chargeable from subscriber needs to be mandated. This would follow a B2C HSP & Subscriber agreement by way of SAF to be standardised for minimum essential details. Once this is done alongwith generation of Subscriber and CO IDs and COs shares included in the ICO, every issue will get resolved. This will constitute level playing field for all types of addressable systems, except DTH where the intermediary CO does NOT exist.

1.2 Should a common interconnection regulatory framework be mandated for all types of addressable systems?

Commonality needs to be confined to items mandated for mention in the ICO.

24. 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.

 No. All applicable terms need to be enshrined in the ICO, which may differ in case to case to form a reference in adjudication if any.
- 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?

In principle what is contained in ICO should be sacro-sanct. Level playing field is the conclusion of ICO

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.

This issue mainly concerns the B2B Broadcaster & HSP ICO. This can be solved by mandating must provide ON REQUEST to a registered DAS HSP or face action for cancellation of downlinking permission on complaint.

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

No

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?

Only non-exclusivity and must provide are significant.

- 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.
- B2B Broadcaster & HSP RIO should contain only 'a-la-carte' rates and discounts(generally camouflaged as carriage fee). B2C HSP-Subscriber ICO is the SAF which must have rate card prevailing on date of application attached. B2B HSP & CO ICO should necessarily mention CO'S percentage on each item of the itemized bill.
- 2.7 Should RIO be the only basis for signing of agreement? If no, then how to make agreements comparable and ensure non-discrimination?

The question of comparison would arise only on complaint. Governance in India is generally reactive and seldom pro-active.

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?

No! SIA is what is suggested in TRAI Regulations. RIO is SIA in spirit but is more elaborative and a reference document to adjudicate when required.

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?

First of all, we must start using right connotation. In wireline broadcasting **channel** is a 7 or 8 MHz wide sub-band of 47-862 MHz spectrum wherein each channel can accommodate 10 to 24 programs. In DAS channel is no more synonymous with program.

No harm in laying down one more format for Uniformity. Fields could be :- (a)Name and style of HSP.

- (b)Location of Headend
- (c) MIB Registration Detail
- (d)Extent of coverage by Headend i.e. Terrestrial/ Municipal, District, State Or pan INDIA.
- (e)Validity of Registration
- (f) Channels transmission Capacity of Headend
- (g) CAS details
- (h) SMS Vendor details and Designed capacity of SMS
- (i) History of CAS hacking if any.
- (i) Anti-piracy features of CAS and SMS.
- (k) SOP (Standard Operating Procedure) when piracy is reported.
- 2.10 Should 'must carry' provision be made applicable for DTH, IPTV and HITS platforms also?

No

DTH and HITS are both limited by transponder availability for distribution. IPTV, largely in TELCO domain, at present delivers content through servers against demand communicated to Central Office i.e. delivering only one program to the STB at a time both in uni-cast and multi-cast. Hence their environment is different from that of CATV.

There is no need for any must carry. Let content owners approach DPOs with request for carriage of their content and HSP should decide whet5her to carry the content or NOT. Why should regulations sound tilted in favour of Broadcasters.

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?

NA since answer to 2.11 is No.

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.

No

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?

ICO should contain all agreements to form a referral for any adjudication if required.

24 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?

Seek an affidavit providing for prosecution without remorse or demur.

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?

No need. At the end of the RIO seek an undertaking that all aspects of RIO have been read and understood before affixing signatures after thorough examination and discussion and that the agreement is now being signed without any other pre-conditions written or otherwise.

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

NA Since answer above is NO.

25. 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.

In absence of a Broadcasting Law in India in general and provision of PAY content in particular, MIB has never demonstrated firm action against defaults by Broadcasters on this count. In practice, particularly for other than National level HSPs, Broadcasters seldom respect conformity to such time lines. Main reason forwarded, in NOT READILY granting release of content for distribution, is their satisfaction of technical parameters audited by their own staff without acredition in management of addressable systems. Most auditors are from IT or book keeping background without wireline broadcasting experience.

The solution lies in attaching technical documents with application for Registration with MIB to attach Headend schematic showing test points created, results expected at those test points, CAS capabilities and SMS Screen shots with MIS to be generated. MIB should scrutinize the application before registration. Once MIB registration is accorded Broadcasters should be mandated to provide content. They can then send their auditors to take test printouts only and verify on site the functioning of CAS and SMS integration.

Besides BECIL more agencies should be approved by TRAI. One such suggestion is to also appoint SCTE India who also have counselling and upskilling acumen.

The sub-division, as suggested in consultation paper is NOT going to solve the problem with the so far demonstrated attitude of Broadcasters.

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?

The financial disincentive suggested is a fine of Rs 1.0 lac per day of delay beyond 60 days reckoning from the date of application for content to be adjusted against bills to be generated by the Broadcaster for the content. This delay shall be reported by HSP to TRAI for enforcement.

- 4.3 Should the SIA be mandated as fall back option? NO need if TRAI can establish enforcement mechanism to deal with influential Broadcasters.
- 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.

The onus of establishing system to meet reqirements of TRAI Regulation No 9 of 2012 for compliance at the Headend should rest with the HSP. In practice the HSP should get the Headend installation report to cover those aspects completed by the agency undertaking Design, Installation, Testing and Commissioning for the DAS Headend. Armed with such authenticated documentation they should conduct Broadcaster's team with the first audit and resolve the observations.

In practice, because of delegated representation to 4 or 5 aggregators of the Broadcasters, such audit teams generally do not conclude and audit report before leaving the site. The report comes after a few weeks with same text from all the aggregators varying only in the stationary used. This is indicative of cartelization to exploit the content seeker who has invested heavily in hardware and is keen to roll out services. The solution lies in attaching technical documents with application

4.5 Whether onus of fixing the responsibility for delay in individual cases may be left to an appropriate dispute resolution forum? Create an Inspectorate of Cable TV Headends under TRAI, train people in design, installing testing and commissioning of Headends and groom them for audit of Addressable Headends. Such auditors have to be empanelled and paid professional expenses when such dispitutes are to be resolved.

26.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?

Compliance of Schedule I of TRAI regulation No 9 of 2012 as a point by point comment and observed infirmity to be corrected.

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.

No. The auditors must complete report at site. The HSP should have SMS and CAS vendor available during first audit to interact with auditors.

27.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?

No need. TRAI Regulation No 9 is adequate for B2B Broadcaster & HSP ICO. SAF and B2B HSP & CO ICO should be left to the HSP to draft and implement. Insistence should be only on concluding the ICOs. Essential points to be covered may be included in the guide lines.

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

NA

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?

However, SCTE India may be consulted.

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

Create Inspectorate of Addressable Cable TV Headends and ask them to create the system.

6.5 What should be the business model for the agency providing IMS services for being self supporting?

Establish them as an Association. Mandate membership of all HSPs to this organization for an annual fee. They can undertake scrutiny of ICO and upload the same on the NET and compile MIS. This has to be a professional body to tackle obstructions by Broadcasters and their verdict has to be honoured in adjudication.

28. 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?

Only one ICO per HSP is required.

Registration categories could be ONE Municipal Limits, TWO District, THREE State and FOUR National with provision to upgrade as capability to manage grows.

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?

NOT if categorization above is followed. In any case NO Broadcaster audit travels to the farthest PoP of the network. Within the above category, Broadcaster should confine to agreed rate to be charged for the volume of subscriber watching the content. In principle, Broadcaster interference in HSPs domain should be minimized.

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?

Changes in Category after amendment of Registration with MIB may be intimated.

29. 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? Since TRAI Regulation No 9 of 2012 provides for audit of Headend twice a year, the term should also be only one year. This will update Broadcasters about changes in operations by HSP. However, audit should be at the cost to HSP for the first time whereinafter all audits should be at Broadcaster's expense. Provide that reluctance by Broadcaster in auditing the headend cannot cause disruption in provision of content.

30. 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?

Yes.

9.2 If so, what should be the period for prior notice?

At least 60 days with mandatory revision of ICO.

31. 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?

In the spirit of DAS legislation YES!

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

NA

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?

DAS as legislated does NOT provide for minimum Guarantee. This is a creation of Broadcasters. Hence it is to be prohibited and provision made for prosecution of Broadcaster or cancellation of downlinking permission when detected.

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

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

In the prevailing Indian environment YES!.

There is no training/upskilling facility in the country. Broadcast Engineering, in general and wireline broadcasting in particular, is NOT taught in India. Hence respect/conformity to performance standards is conspicuous by its absence. Corporatization is visible only at the level of only a couple of National HSPs. These are NOT more than 50 out of 6000. Hence Headend Management skills too remain a serious infirmity. If existing regulations alone can be complied with, it will suffice.

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?

Infirmities are evident in digitization of content due to insistence on cheap and affordable hardware since most Headends have NOT been designed by managing technical staff. Configuration is done by third parties who don't run the Headend. SOPs for regular checks of Headend performance are seldom laid down and checked. Cable Indistry does NOT believe in expenditure on training and upskilling. 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?

Deliverables are listed in TRAI Regulation No 9 of 2012. All that is required is check sheet to be got filled up at the time of installation and commissioning by vendors and a certificate obtained. Some more agencies, other than BECIL, need to be created for authentication. 11.4 Whether in case of any wrong doing by CAS or SMS vendor, action for black listing may be initiated by specified agency against connected SMS or CAS vendor?

CAS and SMS are ordered by HSP on basis of CHEAPEST and MINIMUM PERFORMANCE. Vendors deliver what is ordered in the negotiated amount. Hence infirmity remains with HSP. Why should vendor be penalised? The present state of indifference is attributable to prevailing ignorance. And such actions will lead to avoidable litigation.

33. 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 These are primarily software related services and are crucial for

business. These can't be type approved and have to perform as installed.

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?

No! Performance depends upon Headend configuration and Server architecture and security. Hence certification is on as installed basis.

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 signal does get delayed.

Insistence upon installation report and commissioning certificate from Vendor, verification by Broadcaster's auditors and, if necessary, audit by agencies such as BECIL or others, if promulgated by TRAI.

Delays are caused because most technical staff at Headends conducting auditors of Broadcasters do not understand their own configuration. Further visiting auditors demand parameters outside TRAI Regulations but are reluctant to categorise such requirements as OUTSIDE TRAI REGULATIONS. No action is ever taken against Broadcasters for making such unauthorized demands. Therefore emerges requirement for TRAI to standardise compliance check sheet for such audits.

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

There is no methodology enumerated in TRAI Regulations.

12.5 Whether a panel of auditors on behalf of all broadcasters be mandated or enabled? What could be the mechanism? Competent and Experienced persons should be empanelled by TRAI to be engaged by others on as required payment basis.

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?

These thoughts are totally anti DPOs.

Broadcaster does NOT serve subscribers. HSPs do and hence they need to be enabled.

34. 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.

There is no need. The problem is that the SMS itself is considered a bill printing software by COs and HSPs. The subscription is to be

compiled on average number of subscribers for the month and NOT on the number on last day of the month. Billing is done on application server in a properly configured SMS. By an agreement in the ICO with the HSP, Broadcaster can be given access on Application Server proxy to access only their data pertaining to their account. However such access is read only.

When Broadcaster's auditors visit Headends, they demand carriage of printout of total subscriber details from the server. This is resisted because that data is a business restricted. When auditors sit on the monitor console they can read all the data but carriage of data cannot be allowed. With such an arrangement there would be no requirement for submission of signed data by HSP.

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? Headends are required to compile a monthly excel sheet with columns; Ser No. Name of subscriber, ID, STB Ser No, Date of Installation, CO Name, CO ID, FTA Programs by name and rates, PAY TV by name and rates, Total Chargeable for Programs, Service Tax, Entertainment Tax, Total Payable and Bill No. The horizontal details are inputs for itemized bills. The vertical columns aggregated give Total No of Subscribers, Numbers authorized watching each program, revenue acruing for each program at rates in the ICO. This is confidential business data. Auditors can see the system for confidence generation and reporting to their clients.

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

No! The subscription dates enshrined in the ICO are punched into the SMS to compile accruals to Broadcasters and also reconcile the same with invoices raised by Broadcasters which are often incorrect

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

 No need.
- 13.5 What could be the compensation mechanism for delay in making available subscription figures?

With provision to data access as described above, where is the need?

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

Suggest levy of 10% penalty on under payments and same as discount for overcharging.

13.7 Should a neutral third party system be evolved for generating subscription reports? Who should manage such a system? This question suggests undue concern for broadcasters and bias towards HSP in the mindset. Once criterion for SMS is laid down in regulations, enshrined in ICO, audited/checked by Broadcaster's auditors and satisfaction expressed where is the need for all this?

TRAI needs to remember that CAS and SMS are at HSP's cost. Provisioning for Broadcaster's interest is at HSP's cost.

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

Audit fee should be payable by party which appoints the auditor. Why should the HSP be burdened with that?

35. 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? All the reasons for demise of agreement listed in the consultation paper would lead to a point of no return if issues are NOT resolved. Once that point is reached, the decision to terminate the distribution of program should be notified on Broadcaster's scrolls and also notified in print media. Such notice for information of subscribers could be maximum of 30 days.

14.2 If yes, what should be the notice period? 30 days.

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

36. 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?

No. Subscribers who pay for program need to know possibility of non-availability of their chosen program

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?

No

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

37. 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?

Such prohibitions cannot be enforced. There are Broadcasters with cross business interests who are National HSPs and aggregators since commission income is involved. The prohibition can be circumvented by opening a subsidiary.

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?

Yes.

38. 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.

HITS! Yes, because it is supposed to be akin to CATV and has to register as HSP with MIB. Only difference in technology is two frequency changes and trans-modulation over medium which is partially wireless and wired.

IPTV NOT commented being in TELCO domain at present. 17.2 If yes, what are the changes, if any, that should be incorporated in the existing framework of MIA and SIA. In the existing topology, CATV distribution is almost saturated. Networks exist fed from Headends to COs. Only DAS has mandated registration of Headends with MIB. Hardly any new Cos are emerging. Hence best left to future. Only requirement is mandatory conclusion of B2B HSP & CO Agreement necessarily indicating revenue appropriations for the CO.

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?

NA.

39. 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.

This question indicates total lack of knowledge of ground realities. Largely the CO's network comprises of an encroached layer of hung wires, without RoW, in **somehow connect** mode to subscribers. The HSPs content arrives largely on Optical fibre at a PoP(Point of Presence) at an optical node whereinafter COs copper is driven. New COs are NOT emerging to erect new networks. So! when CO wants to shift to a different HSP, the PoP is sought if not in the area. And services changed. In DAS this may require change of STBs to be managed by CO.

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. Time limit for mandatory conclusion of ICO only needs to be laid down. The switch over is generally achieved in less than 24 hours as far as PoP is concerned. STBs may take time. Probably a week.

40. 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?

With change in definition of PAY TV(that for which HSP pays to Broadcaster), the CO has vanished from the revenue flow radar of the Broadcaster who calls the shots in policies.

COs have been paying a fixed monthly amount to HSPs on a mutually agreed under-declared connectivity figure. SMS as installed is NOT functional. STBs seeded have authorization to decrypt all content from Headend. They are NOT addressable as legislated. COs want fixed monthly subscription based delivery of all content from HSP to be delivered through the STB at existing/prevailing rates with subscriber in the manner serviced so far.

Subscriber is NOT demanding, because DAS is NOT known to them Proportions prescribed do NOT seem practical.

BST plus taxes is the minimum chargeable from the subscriber on

the wireline network of the CO served by their technician. Hence this proportion needs to be 80:20 between CO and HSP.

For FTA, if any, over and above FTA, it could be 65:35.

For PAY TV, it should be 45:55

IPTV being in TELCO domain is NOT commented upon.

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?

41. 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?

Not necessary. This segment in CATV is un-organized and shall remain so. Best left to stake holders.

In DAS, bills are to be generated in the SMS at the Headend and delivered through COs to subscribers for collection. There is no requirement to float invoices on LCOs as legislated in DAS. If TRAI is envisaging invoicing on CO to generate bills on subscriber, contrary to legislation, it would be different.

42. 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? In absence of a broadcasting law in India, Broadcasters have been dictatorial towards network operators.

DAS envisages, irrespective of being a CO earlier, applicant for DAS Headend registration to have that status. New HSP should

have no strings attached to any previous status. Once registration is granted, content MUST be PROVIDED.

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?

No.

43. 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?

No. Treat as a fresh business agreement.

For STBs apply principle of commercial inter-operability.

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

Not relevant in view of previous comments.

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

It is recommended that process to treat CATV as multi-program, multi-channel addressable broadcast over wireline medium should be initiated

More agencies should be nominated for audit of Headends. Minimum academic and technical qualifications must be prescribed for employment in CATV.