

COMMENTS ON TRAI CONSULTATION PAPER No 16/2019 ON
ISSUES RELATED TO INTERCONNECTION REGULATIONS 2017

Lt Col VC Khare (Retd) Cable TV industry Observer

Introduction

1. This consultation paper, in the main, deals with prevailing practice of charging carriage fee and placement fee by DPOs; DTH, CATV and HITS etc. This paper too is clearly got initiated by Broadcasters and their elite influence on TRAI and MIB. This is so because it entails fund outflow from Broadcasters to DPOs.

2. In this connection there is a need to note :-

(a) Cable TV Networks Regulation Act 1995 and its amendments, 2003 and 2011, make no mention of provisions for payment of carriage fee or placement fee. Hence these are deemed contravention of Cable Act, even if got done through TRAI, without approval of such provisions in the Parliament.

(b) DTH operates under policy guidelines from MIB but does not have the strength of a statute. It is however a service akin to CATV in as far as serves the subscribers, without a wireline network or an intermediary like a cable operator.

(c) Till promulgation of Cable TV Networks Regulation Ordinance 1994(Later Act 1995), there were no PAY programs and there were no MSOs(Headend Service Providers i.e. HSPs) registered with any authority in India. All programs, netcasted on Cable TV networks were in analog mode without encoding and encryption and carriage of one program per RF channel 7 or 8 MHz wide in RF Spectrum 47-862 MHz restricted to a count of 106 RF channels).

(d)Cable networks were largely coaxial cable based, with inherent susceptiblity to ‘SKIN EFFECT’ wherein, over the same length of coaxial cable, attenuation per 100 metres increases with frequency (characterized by an inequality relation ‘Attenuation per 100

metres in dB =k  , where k is a constant of proportionality, depending upon construction and material used in the brand of cable.. This means that in every 100 mtrs of coaxial cable channel 106 will attenuate 4 times that in channel 2. *(untrained technicians had spaced amplifiers according to Cable Operator’s channel 2. When spectrum was loaded up to Channel 106, higher channels were hardly visible in every amplifier segment of 250 mtrs unless equalized, i.e. reduction of lower frequencies carrier amplitude to equal that of the highest frequency).* All broadcasters have sizeable income from advertisements dictating that advertisements reach eye balls of viewers clearly. Hence Broadcasters desired that their programs are carried in lower frequency channels. As PAY TV broadcasters were increasing monthly subscription per subscriber, HSPs initiated this practice of charging carriage fee to map obliging broadcaster content in lower band. This, itself, was contrary to Cable Act. However this became redundant in Digital Transmission of netcasting encoded and compressed programs wherein, either all programs will be received in equal clarity, or nothing will be visible, since programs are re-constructed from data in PCM and TDM. Broadcaster sales force was perhaps not aware of this advantage and HSPs did not want to part with cash inflow to off set pay content payments.

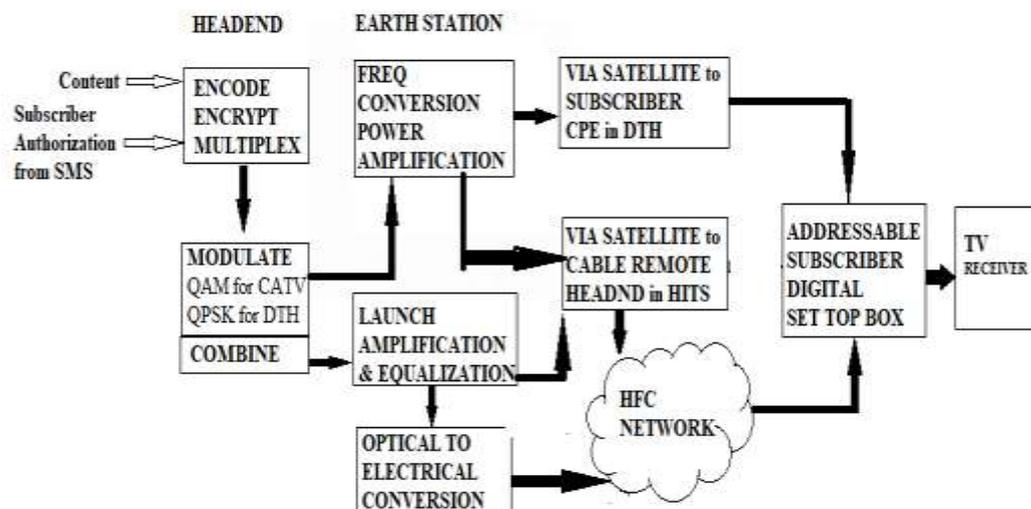
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(d) DAS era specified requirement of displaying EPG. This urged the desire of content providers to see their content listed close to popular programs in the genre. They were, perhaps, not aware that in DVB (Digital Video Broadcasting), using statistical multiplexing, bandwidth required for each program is measured, program is labled in metadata protocol and the listed in PMT(Program Mapping Table) and PAT(Program Allocation Table) for balancing. These tables do not form a part of displayed EPG. Yet frequency details accompany the data in the transport stream for the set top box to read demodulate, decrypt and decode. Thus it is not necessary that a program appearing close to a popular program is enveloped in the same RF channel.

(e) TRAI themselves were appointed regulators in 2003. Hence many persons, on their staff ,may not be aware of genesis of video content delivery practices in the residential segment by private DPOs.

(f) A typical program aggregation and distribution schematic for video content, whether PAY of FTA, is as under :-



TYPICAL VIDEO DISTRIBUTION SCHEMATIC RESIDENTIAL SEGMENT

(g) The activities in a Headend, registered with MIB, are program turnaround, encoding, encryption, authorization data insertion, multiplexing, modulation, combining and level equalization. Upto this stage all actions in Headends are common.

(h) Thereafter in DTH (Ku-Band) and HITS(C-band), frequency up-conversion and power amplification are required to illuminate the transponder in the satellite for up link and downlink for distribution on earth.

(i) In DTH the program is received through Customer Premises Equipment(CPE) i.e. mini-dish, LNBC, coaxial wire and Set Top Box.

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(j) In HITS, the program is downloaded to a remote Headend console with built-in output medium for driving HFC network like a conventional cable TV network but from a virtual Headend in the Sky.

(k) In CATV the headend directly connects to the HFC network with O2E(Optical to Electrical) conversion in Cable Operator proximity and termination through amplifiers and passives into subscriber premises

(l) Anyone wanting to become a DPO, has to invest in Headend addressable aggregation of programs, common to all modes. Thereafter, investments are required in DTH and HITS for satellite uplink and downlink. In case of CATV distribution, very few have RoW for core/edge fibre or HFC network. Hence most of them may not be paying any rentals.

(m) The NTO provides for NCF for building up Headend capacity for multi-channel (RF), multi-program aggregation, transportation and delivery into subscriber premises, with minimum equivalence of content in SD format 100 programs and additional in slabs. That, now, nullifies justification for creation of infra-structure, which is essential to remain in business.

(n) Digital Addressable program transmission technology displaces the justification for carriage and placement fee, which need to be treated as un-ethical extortions.

(o) Target market/connectivity is distribution area coverage without any need for associating number of subscribers. Registrations are granted specifically to establish DAS headend and distribute. Aggregated streams will be visible, if authorized, as long as CPE is fed with levels of signal input above the tuner threshold in the STB.

(p) In accordance with Cable TV Act and DTH/HITS guide lines, wherein bundling of content or levy of carriage fee or placement charges are NOT provided, such practices should be deemed NOT LEGAL.

3. In view of the foregoing, the issues for consultation are answered in these comments.

Issues related to Target Market

1. Do you think that the flexibility of defining the target market is being misused by the distribution platform operators for determining carriage fee? Provide requisite details and facts supported by documents/ data. If yes, please provide your comments on possible solution to address this issue?

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The levy of carriage fee or placement fee, both, are deemed ill-legal unless Cable Act is got amended. In any case both relate to Headend management procedures and bear no relation to connectivity associated with the platform

2. Should there be a cap on the amount of carriage fee that a broadcaster may be required to pay to a DPO? If yes, what should be the amount of this cap and the basis of arriving at the same?

Unless provisions for carriage fee and placement charges are got provisioned in Cable Act, both should be banned.

3. How should cost of carrying a channel may be determined both for DTH platform and MSO platform? Please provide detailed justification and facts supported by documents/data.

FIRST, market rental value of covered and open space required for establishing Headend and Earth Station should be determined, SECOND acquisition cost of hardware installed to be computed and its depreciation value @ 20% per anum(1.675 % per month) should determined, THIRD royalties payable upon CAS and SMS to be computed FOURTH electrical power charges from DISCOMs and Captive sources should be calculated, FIFTH employee wages and related expenses have to be computed SIXTH Taxes liability has to be computed and Totalled Up to arrive at annual as well as monthly figures. This should be divided by a connectivity figure of 50000 (below which operation of DAS headend may NOT be viable). This will give per subscriber per program(not channel because many programs are compressed into one channel) cost. This is to be enhanced by at least 40% as contribution for effort and initiative. In DTH platforms transponder fee too is to be built in. Such costing will lead to price per program/channel.

4. Do you think that the right granted to the DPO to decline to carry a channel having a subscriber base less than 5% in the immediately preceding six months is likely to be misused? If yes, what can be done to prevent such misuse?

Yes ! recommendation is to ban carriage fee and placement charges both, since they don't have backing of Cable Act as legislated.

Issues related to Placement and other agreements between broadcasters and Distributors

5. Should there be a well defined framework for Interconnection Agreements for placement? Should placement fee be regulated? If yes, what should be the parameters for regulating such fee? Support your answer with industry data/reasons.

Placement is a function of Headend architecture in preparation of PMT and PAT. Present practice has emerged from ignorance of placement seekers. All that is required is uniformization of program allocation indices in slots 0-99, 101 to 199, 201 to 299, 301 to 399 and so on. The listing in each genre slot of 99 should be in alphabetical order up to 899.

TRAI has mandated slot 999 for subscriber information. Regional content could be listed from slots 1001 to 1099 and so on.

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6. Do you think that the forbearance provided to the service providers for agreements related to placement, marketing or any other agreement is favoring DPOs ? Does such forbearance allow the service providers to distort the level playing field? Please provide facts and supporting data/documents for your answer(s).

Yes ! The whole regulation regime is centred around requirements of PAY TV broadcasters, including but not limited to proposed audits. This gives opportunity to DPOs to extort from Broadcasters while technologically this practice has no place in DAS environment. The practice is adopted to reduce payout burden of HSPs to Broadcasters and dilute their own outflows. If this practice is dispensed with there will be no need for this in ICOs.

Further, both procedures pertain to listing in the MPEG tabulation in the Headend only. It has no relation with viewership. The existing suggestion in TRAI on pricing of carriage fee tantamounts to avoidable micro-management.

7. Do you think that the Authority should intervene and regulate the interconnection agreements such as placement, marketing or other agreement in any name? Support your answer with justification?

No ! The authority should only eradicate these practices by treating them NOT LEGAL unless Cable Act is got amended, if these are still desired.

8. How can possibility of misuse of flexibility presently given to DPOs to enter into agreements such as marketing, placement or in any other name be curbed? Give your suggestions with justification.

The practice originated in analog regime in Cable TV platforms due to deficiency in skills of technicians (ignorant about phenomenon of SKIN EFFECT in coaxial cables, in-correct spacing of amplifiers and NOT equalising output levels of amplifiers on principle of UNITY gain). This resulted from indifference of TRAI and MIB from creating upskilling and training facilities for this segment. That state continues unabated till date. The urge to reduce payouts precipitated these in DAS regime too.

9. Any other issue related to this consultation paper? Give your suggestion with justification.

Regulation/Cable Act Rules should mandate provision of content to aspirant Headend Service Providers, granted registration by the MIB, without any discrimination and demonstrated impartiality and fairness. That will reduce PAY TV tariffs and empower new entrants in the field. Broadcasters can insist on technical audit of CAS and SMS at the headend to satisfy themselves about reliability of data in annual accounting audits.

TRAI should consider consultation with experienced persons in this domain even if they are not Govt employees.