

**COMMENTS ON TRAI CONSULTATION PAPER No 14/2008**  
**On**  
**QUALITY OF SERVICE ISSUES FOR CABLE TV SERVICES**  
**And**  
**FOR DTH SERVICES**  
**By**  
**Lt Col (Retd) VC Khare, Cable TV Industry Observer**

Observations On The Consultation Paper

1. The spirit of the paper is to EMPOWER the Customer (presumably end Viewer), create rights and spell out obligations of service provider to conform the QoS(Quality of Service). The paper inviting comments is silent on mechanism of implementation. It is paradoxical that Cabled Broadcasts and DTH, both Central Govt Subjects, are envisaged to be left to State Govt Controls for implementation, which implies audit, counseling and punishments, if and where necessary. Bureaucracy at State Govt or District levels cannot be expected to look into individual's woes. Expecting Consumer Forums to enforce QoS issued by TRAI would be fantasy. The paper is also silent on QoE (Quality of Experience) of end user expected to be delivered the QoS. An acid test could be a sincere audit, by impartial professionals, on implementation of QoS in CAS notified areas and DTH..
2. DTH operates on Guide Lines issued by I&B Ministry, while Cable TV is backed by a statute. Section 9 Of Cable Networks Regulation Act 1995 and Amendment 2002, clearly lay down Conformity (Not necessarily ISI marking) to Indian Standards. There is total lack of knowledge of these specifications amongst Cable TV operators, LCOs in general and MSOs in particular. There is no evidence of investment by service providers in skills enrichment of technicians. Training institutions to impart such counseling are non-existent. Some spokes persons have been voicing opinions that retailers/manufacturers of hardware should have been counseling LCOs on these aspects. The fact is LCOs buying material decide on 'Cheapest' and 'Payable when able' attitudes. Quality does not come cheap. The only way QoS can be implemented, in India, is through mandating conditions in applications for licensing and technical audit certification on applications for renewal. Provisions can be made for remedies on objections/observations made in audits before the permissions/licenses are revoked.
3. There are misgivings in thought and expression prevailing in the governance. **First**, there is nothing like analog and digital cable. Coaxial cable, generally referred to as cable, is transparent to analog and digitally compressed content. Both can be transported simultaneously on the coaxial cable network. Content is carried on a carrier, like a letter in an envelope. Carrier is the envelope. The envelope does not concern itself about content. At the receiving end the envelope is torn out to read the content. Digitalization is a means to enhance volume of content in the same spectrum width, depending upon compression ratio !:10 or more. Digital content will compulsorily require an

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interface to transform digitally transported content for viewing on analog TV sets through a set top box. Digitalization applies to the Headend only and NOT to the conduit, i.e. fiber, copper or ether (the mediums). Encryption, if adopted facilitates addressability i.e. conditional access. **Second**, CAS is a system and is synonymized with Cable TV only. Mandatory CAS has become derogatory in cable networks but is enforced in DTH. This term is being blown out of proportion. The end user does not understand this. Their only concern is the cost at which the content will be delivered and its quality of appeal.

4. Indian standards can only lay down EOL(End of Line) signal specifications. Levels to be transmitted at the Headend are a backwards computation by adding the predicted path loss. The path comprises of predicted attenuation and intermediate amplifications, if any, resulting in levels delivered at the EOL in the viewer's premises. It is incorrect to expect that BIS can lay down transmission end standards. Such statements should be avoided. The computation of Headend levels are a function of quality of equipment used which depends upon quality of Hardware and its cost.
5. LCOs inter-connect agreements can only spell out delivery levels at nodes in the conduit delivery point in the LCO's domain, whereinafter the EOL parameters at subscriber premises are contained in IS13420 and depend upon LCO's network quality.

Comments On Issues For Consultation- Cable TV

6. **4.1.1** Areas and parameters of QoS which need to be covered in regulations have to be derived from QoE. Any viewer of video delivery service is concerned about (a) Equal picture and sound clarity on all channels, with or without a set top box (a function of conformity to IS 13420 which can form a part of installation report), (b) Chargeable rate card for subscriptions, services and taxes, (c) issuance of itemized bill, (d) a unique customer ID to establish bonafides (e) grievance redressal mechanism with a time bound hierarchy for escalation of every issue from local to state to central govt levels and (f) punitive actions including revoking licenses to provide services on genuineness of complaints established. The QoS should be applicable to all video delivery modes. While promulgation of QoS is a bureaucratic function, its enforcement implies an empathetic shoulder to be cried upon and solaced. Without a feedback system, QoS would have little meaning.

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7. **4.1.2** Once QoS and QoE are conceptualized, customer ID and Service providers details known, provision should be made for 'On Line' reporting of violations, with speedy check back mechanisms. Once 'On Line' violation is reported and allocated a docket number, customers should be empowered to hold back payments, without being dis-connected, till the issue is resolved .
8. **4.1.3** Wireline Services, i.e. broadcasts(including cabled broadcasts) and telecom are Central Govt Subjects. Expecting state govts to administer a Central Govt subject would be, fundamentally, in-correct. A better connotation could be 'Enforcement by I&B Ministry with Co-operation of State Govts' Organizations like BES and IETE have state level chapters to implement such mandates, if delegated. Provision may have to be made for service providers to get their systems audited through BES or IETE, against a fee and submit annual conformity reports, failing which their licenses could be revoked or renewal withheld. Telcos venturing into video delivery may be able to conform to because of their stronger financial muscle and better quality of managers. Cable TV operators have grown in business scalability and turnover but have not yet demonstrated professional management acumen.
9. **4.1.4** There is a need for establishment of a design house (akin to architects in building construction business) with associated network construction contractors. Networks should be designed on strand maps, with optimal positioning of active and passive components, designs approved by an accredited agency, built by a reputed contractor and "As Built" network approved by a qualified engineer/ agency. Since Cable TV industry has been crying over ROW (Right Of Way), provision should be made by leasing of spare dark fiber lying idle with various telcos. This can mitigate ROW issues to a large extent. Further, recommendations on such subjects could be got drafted with associated experts from the industry and then couched in bureaucratic connotations submitted by TRAI to the I&B Ministry.

Comments On Issues for Consultation - For DTH

10. **4.1.5** No! ...It must be understood that KU Band transponders are scarce. Indiscriminate compression to pack more channels causes deterioration in viewing quality at customer end. Initially service providers boast of more channels than the other incumbents and penetrating prices.

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After the subscriber has been acquired, and his cable connection severed, bundle revisions are thrust because of business compulsions and demand Pattern. DTH Operator should be left free to select channels making business sense. In consumer's interest, when a channel is to be dropped, notice should be given through integrated SMS (Subscriber Management System).

11. **4.1.6** The simplistic solution, perhaps, lies in introducing 'a-la-carte' in DTH also, with regulated rates. The billing fare should specify FTV (Free to Viewer) and PAY TV content distinctly. FTV should form part of basic passage while PAY TV should be on 'a-la-carte' selection. This model can solve most of the problems. Billing revisions, for the viewer, should be permitted on monthly basis confined to billing cycles.
12. **4.1.7** Sports channels, in particular, are insisting on 6 months compulsory subscription. This should be prohibited. Sports channel can opt for annual, half yearly, quarterly, monthly or impulse subscription (for durations less than a month) at increasing rates, shorter the duration higher the rate (For example rising slopes 25% from annual to half year, 40% from half yearly to quarterly, 75% from quarterly to monthly and 150% for durations less than 15 days). The common denominator could be a twelfth of annual rate. Service providers need to have a robust SMS to deal such dynamic billing. Since is being promulgated as a service **superior** to cable TV, bench marking and comparison with cable rates, as a practice must cease. (as an example if an item costs Rs 140/- in a DHABA and Rs 600/- in a five star hotel, for the same recipe and taste, the 5 Star service provider does not cry about the DHABA DTH service provider should convincingly serve better quality, content and empathy to the subscriber. Notwithstanding the foregoing in this paragraph, minimum subscription period, in view of the non-availability of real time return path communication to the SMS, should be a maximum of one month.
13. **4.1.8** CPE(Customer Premises Equipment) serviceability is confined to ease of access to subscriber premises from the location of the nearest service centre. None of the components of CPE can be repaired 'in-situ'. Restoration of service implies replacement, new or serviceable, re-cycling of 'field service returned un-serviceable' and its substitution with the interim replacement. The costs involved are hardware, repair charges (man-hours on the job and usage of instruments), transportation, insurance and taxes. Over and above this, traveling costs of service personnel are also

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- incurred. This component can be mitigated by customer bringing the defective component to service centre. 'No Signal' can also be caused by mis- alignment of mini dish, damage to smart card or its housing window . It is very difficult to suggest a ceiling. However issue of itemized bill to reflect the breakdown of charges levied can be a good practice.
14. **4.1.9 & 10** Repair and maintenance visits largely apply to CPE, under warranty period for outright sales, or those on lease or hire-purchase during validity of agreement, i.e. till transfer of lien on ownership. The liability for maintaining/restoring serviceability remains with service provider during warranty period for outright buyers of CPE. But the liability for maintaining the serviceability/restoration of the CPE on lease/hire purchase rests with service provider. However, warranty does NOT include transporting charges for individuals and hardware. Therefore for customers of all categories, itemized bills must be issued detailing the breakdown of payments sought. AMCs, at fixed rates, are not known to be in practice as yet. However, the model is likely to be complicated and controversial. The best bet would be for customers to go for hire-purchase. All such eventualities should be clearly stated in the manual to be issued by DTH service providers, as laid down in the prescribed QoS but not complied with as yet.
15. **4.1.11** Yes ! Recharging calls should be free and hence toll free numbers must be mandated.
16. **4.1.12** Due to non-availability of return path communication, an inherent drawback of DTH system, for SMS, suspension of service for one full calendar month only should be considered.
17. **4.1.13** Only from next billing cycle.
18. **4.1.14** For any new service connection, tariff plan, as entered in the Customer Acquisition Form, cannot be changed for a period of six months from the date of activation. At present all subscriptions are largely pre-paid. Hence on expiry for which subscription remains in credit, service should seek on default. Provision can be made to warn the subscriber through e-Mail, short messages or forced tune crawlers 15 days prior to exhaustion of credit balance.

