

**TRAI's Consultation Paper on Interconnection Issues relating to
Broadcasting & Cable Services- December 15, 2008**

RESPONSES ON THE ISSUES FOR CONSULTATION

6.2 Interconnection for Addressable Platforms

6.2.1 Whether the Interconnection Regulation should make it mandatory for the broadcasters to publish Reference Interconnect Offers (RIOs) for all addressable systems, and whether such RIOs should be same for all addressable systems or whether a broadcaster should be permitted to offer different RIOs for different platforms?

Response:

The RIOs are already available for all cable areas under 13.1 of non-CAS area Interconnect Regulations as amended by the September 2006 regulations. However some broadcasters have interpreted the requirement for RIO as to be limited to only analogue networks when it is clear that there is a growing voluntary deployment of digitalization in non-CAS areas .

As per prevalent regulations, the addressable platforms today are only CAS (areas) Cable and DTH. (IPTV has just been initiated; we have no details as to whether they offer genuine choice of contents or not).

The RIA(Reference Interconnect Agreement) is in order for CAS and RIO stipulations by Broadcasters as a part of DTH Interconnect Regulations dated 3/9/2007 for DTH platform alongwith broad terms to be covered in these RIOs are facilitating the finalization of interconnect agreements in respect of these distribution platforms. . If RIO's has to be further made mandatory for Voluntary CAS, It is important to regulate the addressability norms in the voluntary CAS areas, and then making RIO mandatory in addressable platforms.

RIOs norms can be considered for analog in the non CAS and a new RIO which can be on similar lines of DTH should be made applicable for the contents being given for the encrypted / pay content being provided specifically only under the Digital Addressable System. However, it must be kept in mind that the commercial terms to be stipulated in the RIO for digital cable has to be different from DTH in as-much-as in this segment a portion of revenue is also required to be shared with additional stakeholder viz. cable operator. Accordingly, the commercial terms for procurement of content and/or the stipulation of distribution margin for different stakeholders across the value chain has to be different from the regulatory framework stipulated for DTH. In other words, in order to make the digital cable viable and affordable by the subscribers, it is imperative that the content must be made available at a price which has to be lower than "50% of the analogue cable rates" which is a norm stipulated for DTH platforms. . ,

The ideal way, is to move forward for mandatory conditional access (all pay channels should be allowed to be distributed through a digital addressable STB and choice is possible.

We believe, the same basis can be adopted for Mobile TV and IPTV.

6.2.2 Is there any other methodology which will ensure availability of content to all addressable platforms on non-discriminatory basis?

Response:

Subject to above as in 6.2.1, this methodology is already available for CAS areas and DTH and the same can be further applied with the modifications suggested above in the above mentioned Non CAS areas where voluntary CAS can be adopted as a first phase (specially for the pay channels which may not be made available for whatever reasons in the analog stream]. It may be clarified by TRAI that clause 3.2 of the Interconnect regulations is also applicable to digital/ addressable platforms.

6.2.3 What should be the minimum specifications/ conditions that any TV channel distribution system must satisfy to be able to get signals on terms at par with other addressable platforms? Are the specifications indicated in the Annexure adequate in this regard?

Response:

The specifications and content norms can be adopted only if the basic commercial framework of an addressable system is agreed and implemented upon which means differential pricing and product services can be given through the addressable system in the non CAS area based on the basic RIO discussed above, which is mostly applicable, currently in DTH

While studying the details in the annexure about the specifications of Set Top Boxes, finger printing, CAS and SMS, we feel that there can be minor modifications to adopt totally in a purely addressable environment which is being provided in the Annexure 1 separately.

6.2.4 What should be the methodology to ensure and verify that any distribution network seeking to get signals on terms at par with other addressable platforms satisfies the minimum specified conditions for addressable systems?

Response:

Same conditions should apply as discussed above and can be audited by BECIL or any other authority appointed by TRAI, as was done in case of mandatory CAS. However, this should be applicable in all addressable platforms. Also the QOS conditions required for both MSOs and LCOs should be clearly spelt out

6.2.5 What should be the treatment of hybrid cable networks in non-CAS areas which provide both types of service, i.e., analogue (without encryption) and digital (with encryption) services?

Response:

In non-CAS area where hybrid cable services are provided i.e. analog (without encryption) and digital pay channels (with encryption), we would like to state the following:

- a) *To initiate voluntary digitalization. Choice of channels for digital can be considered. For digitalization, based on the Government and Regulatory time table for mandatory CAS, - first and foremost; like in other addressable platforms (CAS, DTH), ala Carte choice of channels is allowed at the Distribution platform level (MSO or DTH operator level) to form bouquets, based on the demand/need of the content in specific areas (for Cable Addressable). Broadcasters should abide by this.*
- b) *Same should be acceptable where pay channels are given in any addressable digital platform in any part of the country (meaning digital cable, DTH, IPTV, HITS).*
- c) *To take this logic further, what we mean is that the cable distribution platform can plan a bouquet in analog system which may include FTA and Pay Channels and price it according to non CAS tariff order of TRAI; and on the digital addressable platform they should be allowed to provide any number of services (Video, Audio, PPV, etc) which is technically feasible and should be allowed to price with multitude of choices for customers. Hence on digital, the Distribution platform should be free to charge as the option to customers will be there.*
- d) *However, the only so called minimum specifications and conditions for this hybrid cable network / voluntary addressable system may be adopted. They do need to be mandatorily under the relevant RIA's.*

6.2.6 Whether there is a need to define “Commercial Subscribers”, and what should be that definition?

Response:

- *We believe the definition of “Commercial Subscribers” in CAS and non-CAS logically should be same and be implemented for DTH platform also. We feel the CAS definition for Commercial Subscribers should be applicable for all addressable platforms where choice of channels is provided.*

6.2.7 Whether the Broadcasters may be mandated to publish RIOs for all addressable platforms for Commercial Subscribers as distinct from broadcasters' RIOs for non-Commercial Subscribers?

Response:

- *The Broadcasters should be mandated to publish RIOs for all addressable platforms for Commercial Subscribers and there should be non-discrimination factors in this also (across the platforms). This should also be applicable in non-CAS analogue and digital both.*

6.2.8 whether the regulation should mandate publishing of Reference Interconnect Agreements (RIAs) for addressable systems instead of Reference Interconnect Offers (RIOs)?

Response:

- *Yes, for both Analog and Digital Cable along with the options for digital as above. RIAs will make more sense for analog and addressable systems..*
- *It should be accepted by Broadcasters that any pay channel could be given THROUGH DIGITAL ADDRESSABLE SYSTEM ALSO.*
- *The revenue sharing basis can be kept as per CAS interconnect agreement. Prices may be decontrolled with a maximum cap.*

6.2.9 Whether the time period of 45 days prescribed for signing of Interconnection Agreements should be reduced if RIOs are replaced by RIAs as suggested above?

Response:

- *As all the major terms & conditions would be specified in RIAs, we recommend the time period upto 30 days for execution of RIAs.*

6.2.10 Whether the regulation should specifically prohibit the broadcasters from imposing any kind of restrictions on packaging of channels on an addressable platform?

Response:

Some of the fundamental queries in this regard are as follows:

- *Why should the consumers pay for the channels, which are not being watched by them?*
- *How can broadcasters ask for payment for all subscribers and later accuse MSOs / Cable Operator for alleged under-declaration.*
- *Currently there are more than 100 channels in pay mode.*
- *TRAI's own analysis earlier; was that the average monthly Cable Bill was Rs. 176/- per subscriber per month [para 5.15 of explanatory statement to the Telecommunication and*

(Broadband and cable) Services (Third) (CAS Areas) Tariff Order 2006 dated 31.08.2006].

- **Authority recognized impediment in delivery of channels in current analogue mode and have given recommendation to Government on 14.09.2005 for digitalization.**
- **Similar views have been expressed by TRAI that analogue mode has the capacity to deliver only 55–70 channels to the subscribers.**
- **Consumer even today pays less than Rs. 200/- per month on an average all India basis in the analogue/non CAS areas for an average of 70 to 90 channels (both FTA and pay included)**
- **TRAI had also held the view that MSOs and cable operators are forced by the broadcasters to take large bouquets for which they have no bandwidth which effectively means that MSOs are compelled to subscribe for more than 100 pay channels despite having no bandwidth capacity and delivering less than 70 channels including FTA channels, meaning the channels, which though subscribed, are not delivered to subscriber due to technical impediment in analogue mode. Why should consumer pay for it? It also means that by compelling to subscribe larger bouquets without being delivered only demonstrates that broadcasters are being over and excessively paid.**

- **Even in the CAS notified areas of Mumbai, all the major MSOs have observed:**
 - **Only around 45% to 50% have taken the choice of digital STBs to watch Pay channels and remaining continue to watch FTA channels**
 - **Sizable population (of over 50%) among these digital subscribers are happy subscribing only 20-25 pay channels on a-la-carte**

Hence, this area requires a very specific regulation; as has been discussed by the Authority itself and the ground rules fundamentally suggested are as follows:

- a) **Under any addressable platform, any pay channel has to be provided with ala carte pricing and terms and conditions independent of pricing in the bouquet, for the distribution platform to pick choose and make its own bouquet based on local area needs. In other words, the packaging flexibility has to be with the distribution platform only.**
- b) **The bouquet pricing norms should be followed as given earlier in the non-CAS tariff order and as adopted in DTH.**
- c) **As already briefed by the Authority, there cannot be any conditions in the agreement for continuing or discontinuing any channels of the bouquet or any condition to add up any new channel launched by the same broadcasting group later during the agreement tenure.**

Hence all the preconditions regarding an undertaking to subscribe to future channels to be launched by the broadcaster would violate the clause

13.2A.11 as mentioned by the Authority. TRAI has to intervene and provide relevant curative mechanism to avoid such conditions in the RIO/RIA.

6.2.11 whether the regulation should specifically prohibit the broadcasters from imposing any kind of restrictions on pricing of channels on an addressable platform?

Response:

- ***Considering the huge market potential for converting pay channel subscription and ensuring that the customers start subscribing more pay channels, it is in the interest of all stakeholders that the price levels should justify the basic market growth issues and adaptability of addressable system.***
- ***Hence we feel that the formula adopted currently in the DTH pricing (which is based on non CAS tariff orders RIOs) can be utilized as a starting phase for the voluntary addressable cable and IPTV areas.***

6.3 Interconnection for non-addressable platforms

6.3.1 Whether the terms & conditions and details to be specifically included in the RIO for non-addressable systems should be specified by the Regulation as has been done for DTH?

Response:

- ***Ala Carte choice from Broadcaster to the MSO***
- ***Cannot ask for an arbitrary increase in subscriber base. This will go according to market conditions.***
- ***If a MSO gains territory, then only the subscriber number can go up and similarly, if a MSO loses territory, subscriber number should come down. This rule on subscription norms should be adopted based on the increases limited only to the genuine cases of addition or deletion of the subscriber base with authentic market information or other evidence.***
- ***The rates should be frozen for at least one year, both for bouquet or ala Carte pricing. Price of channel/bouquet should follow regulations.***
- ***New pay channels launched during the year by a particular broadcasting group, even if added in a bouquet should not be allowed for any price increase for that year. Or the channel should not be allowed to be added in any existing bouquet (as per earlier TRAI tariff orders)***
- ***This will put an end to innumerable legal wrangles around the year and will ensure better customer satisfaction***

6.3.2 what terms & conditions and details should be specified for inclusion in the RIO for non-addressable systems?

Response:

- *As above, the total amount has to be considered in the RIO for the agreement period.*
- *The subscriber base and/ or the price of channel should be as per above 6.3.1 response*

6.4 General Interconnection Issues

6.4.1 Whether it should be made mandatory that before a service provider becomes eligible to enjoy the benefits/ protections accorded under interconnect regulations, he must first establish that he fulfills all the requirements under quality of service regulations as applicable?

Response:

- *MSOs are already following the QoS norms both in CAS areas and in non-CAS areas, especially upto the last mile /LCO. The QoS issues in non CAS for LCOs has to be deliberated through the responses provided in the earlier non CAS QoS consultation paper*
- *Recently, the non CAS QOS documents response has already provided the CAS area QOS issues have been taken care of wherever CAS has been implemented. It is not clearly understood how can mandatory QoS be implemented even before the content is broadcasted and carried under various interconnect arrangements with broadcasters.*
- *We assume that this issues of ensuring all service quality fulfillment is primarily meant for addressable systems of cable or DTH/IPTV) and where the basic fundamental and principle of providing addressable system is acceptable as the getting principle of interconnect rules as explained above giving a choice to customers for any channel or bouquet and giving option for differential pricing.*
- *To ensure genuine non-discrimination, no stumbling blocks should be provided in the regulations, which hobble the signal seeker and provide a tool in the hands of content provider to deny the content if it so desires on one pretext or the other.*
- *In most of the service related sectors, QoS Regulations are primarily meant for ensuring quality service to subscribers and an effective & efficient redressal mechanism to take care of the consumers' complaints. It may be appreciated that the quality and other related aspects would come into the picture only upon the commencement of service. Thus, the compliance of QoS cannot be made as a precondition for invoking rights under Interconnect Regulations which in fact are normally invoked in order to seek the content for starting the service for if there is no content, - there would be no service and accordingly there cannot be any QoS.. .*

6.4.2 Whether applicability of clause 3.2 of the Interconnect Regulation should be restricted so that a distributor of TV channels is barred from seeking signals in terms of clause 3.2 of the Interconnect Regulation from a broadcaster for those channels in respect of which carriage fee is being demanded by the distributor of TV channels from the broadcaster?

Response:

- *Today, we have over 400 channels legally cleared by MIB under uplinking and downlinking laws.*
- *Analogue cable has capacity of only 55 to 90 channels*
- *Broadcasters have subscription revenue and ad revenues, SMS revenues and international sales.*
- *MSOs receive subscription revenue, which are normally lower than the subscription amounts paid to the broadcasters*
- *Hence, Carriage is an essential part of MSOs revenue model just like Ad revenue of Broadcaster*
- *In case of such a case, then there will be a debate whether any Channel can be termed as “pay channel” if they have ads in it.*
- *The very concept of Pay channels then has to go for a radical change and subscriptions should have regulations based on advertisements carried by a pay channel?*
- *In this regard, it is to be appreciated that clause 3.2 of the Interconnect Regulations is required to be invoked only for seeking content of pay channels. In case of FTA channels, since they are unencrypted, they can be received by a distributor of channels if it so desires. Accordingly, for seeking pay channel, the only requirement that a content provider can stipulate is the payment of applicable subscription fee. There is no question of any ‘carriage issue’ in such cases as the distributor of channels itself has sought the channels by invoking the Interconnect Regulation. Accordingly, in such cases the issue that can arise is only in respect of placement of these channels at desired frequencies by the broadcasters in order to maximize their advertisement revenue. The said issue is totally distinct and different from the rights under Interconnect Regulations as the Interconnection is concluded once the distributor of channels signs the subscription agreement and agrees to pay the prescribed subscription fee accordingly, there is no rationale of linking “carriage issues” with the rights available under Interconnect Regulations.*
- *It’s an issue of market forces and mutual negotiation, no laws or regulations can be helpful in this. We are aware that a Broadcaster group may have many channels to offer based on HIS BUSINESS NEEDS FOR THE AD REVENUE. So, to restrict a distribution cost to a business entity that wants to make money by ad revenue at the cost and strength of distribution is not at all relevant.*
- *We are enclosing a relevant annexure (as annexure 2) regarding the carriage issues, which will further elucidate this (presented in September 2008 to the Authority by the MSO Alliance)*

6.4.3 Whether there is a need to regulate certain features of carriage fee, such as stability, transparency, predictability and periodicity, as well as the relationship between TAM/TRP ratings and carriage fee.

Response:

- ***Subscription today is not the main business model of the MSOs, because of the lopsided subscription charges by the Broadcasters (on an analog cable platform). That's why without placement/carriage fees MSOs will have no business, especially when the mandatory CAS is not moving ahead***
- ***Any regulation in Carriage fee will open up Pandora's box and it will get into the business models of the Broadcasters and MSOs. There will then a regulatory need for the maximum time of ads in pay channels and FTA channels, ad rates limits per 10 second, sharing of ad amounts, measuring TRP, sample size of TRP etc. etc.***
- ***The ad model and ad rates of broadcasters can also fall under scanner, if any such issues in placement need to be regulated***
- ***We strongly suggest that the authority should desist from any regulatory features of carriage, as this is now a basic business model based on the market forces EXACTLY SIMILAR TO THAT OF AD MARKETING AND AD PRICINGS!!***

6.4.4 If so, then what should the manner of such regulation be.

Response:

- ***As Explained above, no regulation can be considered to ensure level playing field.***

6.4.5 Whether the standard interconnect agreement between broadcasters and MSOs should be amended to enable the MSOs, which have been duly approved by the Government for providing services in CAS areas, to utilize the infrastructure of a HITS operator for carriage of signals to the MSO's affiliate cable operators in CAS areas?

Response:

- ***HITS is a Mass Cable digital system. Even under HITS, the signals are delivered to the ultimate subscribers through cable network. The only difference between HITS and the traditional mode of digital delivery is that under HITS the terrestrial digital headend is replaced by "Headend in the Sky". Thereafter the signals are delivered through the same delivery chain viz. cable operators to the ultimate subscribers as is done through terrestrial headend. Accordingly, there is no reason as to why the approved MSOs should not be allowed to utilize the HITS technology/infrastructure for carriage/delivery of signals in CAS areas.***

- *Whatever rules, regulation, laws are applicable to digital cable with addressability through terrestrial headend, should be applicable to HITS across India and vice –versa*
- *Though, at present the CAS notified areas are really miniscule considering the size of the cable industry, we are of the considered view that HITS should be allowed as a mode of digital delivery in CAS areas.*
- *However, we sincerely believe that the Government clarifies the HITS legislation/policy by opening up the doors for more than one HITS operator so that there is a genuine & optimum utilization of this platform.*
- *HITS platform is meant for much larger areas and technically on a pan India basis. The benefits of HITS can only happen if all the addressability regulations move on with the mandatory CAS timetable.*

6.4.6 Whether the standard interconnect agreement between broadcasters and HITS operators need to be prescribed by the Authority, and whether these should be broadly the same as prescribed between broadcasters and MSOs in CAS notified areas?

Response:

- *Yes, technically it has to be similar to the CAS area standard interconnect arrangements already notified by the Authority. However, as explained above, HITS operator should be allowed to utilize this arrangement in non-CAS area/voluntary CAS areas as well with an option of bundling or non bundling of a particular pay channel in analog bouquet.*

6.4.7 What further regulatory measures need to be taken to ensure that DTH operators are able to provide six month protection for subscribers as provided by Sub clause (1) of Clause 9 of the Direct to Home Broadcasting Services (Standards of Quality of Service and Redressal of Grievances) Regulations, 2007?

Response:

- *DTH is an addressable platform. Relevant Qos conditions should be made mandatory across the value chain i.e. at Broadcaster level as well.*
- *There should be a transparent genuine level playing field in all addressable platforms*

6.4.8 Towards this objective, should it be made mandatory for broadcasters to continue to provide signals to DTH operators for a period of six months after the date of expiry of interconnection agreement to enable the DTH operators to discharge their obligation?

Response:

As mentioned in 6.4.8 response

6.4.9 Is there any other regulatory measure which will achieve the same objective?

Response:

Not relevant for cable

Registration of Interconnection Agreements

6.5.1 Whether it should be made mandatory for all interconnect agreements to be reduced to writing?

Response:

- *In case of both non-CAS as well as addressable platforms, the interconnect agreements should be in writing with copies made available to the relevant authorities. (with confidential clauses) Regarding non addressable areas (cable), the interconnect agreements need a much higher transparency*
- *Both parties should have signed and exchanged the document*

6.5.2 Whether it should be made mandatory for the Broadcasters/ MSOs to provide signals to any distributor of TV channels only after duly executing a written interconnection agreement?

Response:

- *It is ideal to have an interconnect agreement executed in writing . However, this primarily applies for the pay channels who need a minimum subscription amount from the concerned MSOs. For FTA channels, presently interconnect norms are not being followed and this needs to be worked out in a more simple format.*
- *The terms and conditions of interconnect should be made simple and acceptable to both the broadcaster and MSOs, possibly with the help of the authority so that we can move in a regulatory phase of having only written interconnection agreements for signals to be offered. The other issues on interconnect agreements, transparency, etc., we also suggest the following:??????????*
- *Due to paucity of time and customer support, wherever the MOU's are entered, they should be converted into an agreement within 90 days.*

6.5.3 Whether no regulatory protection should be made available to distributors of TV channels who have not executed Interconnect Agreements in writing?

Response:

Regulatory protection should be given with the stipulated safeguard of the time period within which the formal agreement can be arrived at, say 30 days.

6.5.4 How can it be ensured that a copy of signed interconnection agreement is given to the distributor of TV channels?

Response:

Yes, an information report of same should be submitted to Authority (may be the commercials can be kept confidential) within 30 days of execution

6.5.5 Whether it should be the responsibility of the Broadcaster to hand over a copy of signed Interconnect Agreement to MSO or LCO as the case may be, and obtain an acknowledgement in this regard? Whether similar responsibility should also be cast on MSOs when they are executing interconnection agreements with their affiliate LCOs?

Response:

Yes, with a time frame limit of 7 days after execution.

6.5.6 Whether the broadcasters should be required to furnish a certificate to the effect that a signed copy of the interconnect agreement has been handed over to all the distributors of television channels and an acknowledgement has been received from them in this regard while filing the details of interconnect agreements in compliance with the Regulation?

Response:

As mentioned above an information format report should be submitted to TRAI

6.5.7 Whether the periodicity of filing of Interconnect agreements be revised?

Response:

Within 30 days of the executed Interconnect agreement. The agreements should be considered at least on a yearly basis. Even if, a longer duration agreement is there between a Broadcaster and MSO, the annual info to Authority should be a must.

6.5.8 What should be the due date for filing of information in case the periodicity is revised?

Response:

Within 30 days of signing the agreement and on a Financial Year basis (meaning due date can be around 15th April)

6.5.9 What should be a reasonable notice period to be given to the Broadcaster/ DTH operator as the case may be, by the Authority while asking for any specific interconnect agreements, signed subsequent to periodic filing of details of interconnect agreements?

Response:

One month

6.5.10 What should be the retention period of filings made in compliance of the Regulation?

Response:

Upto Five years maximum.(to avoid any problems in litigation)

6.5.11 Whether the broadcasters and DTH operators should be required to file the data in scanned form in CDs/ DVDs?

Response:

Should be fine.

6.5.12 Whether the interconnection filings should be placed in public domain?

Response:

Not required. The Authority's knowledge on the issues will be formidable in case of any dispute areas and information to be shared can be which is deemed fit by the Authority

6.5.13 Is there any other way of effectively implementing non-discrimination clause in Interconnect Regulation while retaining the confidentiality of interconnection filings?

Response:

The authority can ask the information of any interconnection to ensure non-discrimination. However, they should not be in public domain

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Annexure 1

on Tech parameters of STB,SMS,CAS

(A). STB Requirements:

1. All the STBs should have embedded Conditional Access.

IMCL: NO, assuming that embedded implies no use of Smart Card. In case of hacking the STB has to be replaced whereas in Smart Card case only the smart card has to be replaced.

Hathway...All STBs should be CA enabled using embedded & smart card technology solution

2. The STB should be capable of decrypting the Conditional Access inserted by the Headend. **Yes.**

3. The STB should be capable of doing the Overt and Covert Finger printing. The box should support both Entitlement Control Message (ECM) & Entitlement Management Message (EMM) based fingerprinting. ***Overt – Yes, Covert –No. For checking piracy the fingerprint has to be seen on the STB. Thus physical access to the STB is required. Any suppression of fingerprinting can be detected. See Point B-10 and C-2 below.***

4. The box should be individually addressable from the Headend. **Yes.**

5. The box should be able to take the messaging from the Headend. **Yes.**

6. The messaging character length should be minimal 120 characters. ***Desirable, but may not be possible.***

7. There should be provision for the global messaging, group messaging and the individual box messaging. **Yes.**

8. The box should have forced messaging capability. **Yes.**

9. The box must be BIS compliant. **Yes. However, requirement of Channel 3 and 4 need be reviewed.**

10. There should be a system in place to secure content between decryption & decompression within the STB. ***NOT clear /notUnderstood.***

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

(B) Fingerprinting Requirements:

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

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

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

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

5. The location of the Finger printing should be changeable from the Headend and should be random on the viewing device.

IMCL:Not Necessary.

Hathway... Yes.

6. The Finger printing should be able to give the numbers of characters as to identify the unique STB and/ or the VC. **Yes.**

7. The Finger printing should be possible on global as well as on the individual STB basis. **Yes.**

8. The Overt finger printing and On screen display messages of the respective broadcasters should be displayed by the MSO/LCO without any alteration with regard to the time, location, duration and frequency.

IMCL: Broadcaster's fingerprint has no utilization in a large network in Metros.

Hathway...Yes.

9. No common interface Customer Premises Equipment (CPE) to be used. **Yes.**

10. The box should have a provision that OSD is never disabled. **Yes.**

(C) CAS & SMS Requirements:

1. The current version of the conditional access system should not have any history of the hacking. **Yes.**
2. The fingerprinting should not get invalidated by use of any device or software. **Yes.**
3. The STB & VC should be paired from head-end to ensure security. **Yes.**
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 activations and deactivations. **Yes.**
5. The CA company should be known to have capability of upgrading the CA in case of a known incidence of the hacking. **Yes.**
6. The SMS & CAS should be capable of individually addressing subscribers, on a channel by channel and STB by STB basis. **Yes.**
7. The SMS should be computerized and capable to record the vital information and data concerning the subscribers such as: **Yes.**
 - a. Unique Customer Id
 - b. Subscription Contract no
 - c. Name of the subscriber
 - d. Billing Address
 - e. Installation Address
 - f. Landline no
 - g. Mobile No
 - h. Email id
 - i. Service /Package subscribed to
 - j. Unique STB No
 - k. Unique VC No
8. The SMS should be able to undertake the: **Yes.**

- a. Viewing and printing historical data in terms of the activations, deactivations etc
 - b. Location of each and every set top box/VC unit
 - c. The SMS should be capable of giving the reporting at any desired time about: **Yes.**
 - i. The total no subscribers authorized
 - ii. The total no of subscribers on the network
 - iii. The total no of subscribers subscribing to a particular service at any particular date.
 - iv. The details of channels opted by subscriber on a-la carte basis.
 - v. The package wise details of the channels in the package.
 - vi. The package wise subscriber numbers.
 - vii. The ageing of the subscriber on the particular channel or package
 - viii. The history of all the above mentioned data for the period of the last 2 years
9. The SMS and CAS should be able to handle at least one million concurrent subscribers on the system.

Yes, this is fine. Can ensure genuine and serious players and also enhance consolidation for better consumer benefits

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

11. The CAS system provider should be able to provide monthly log of the activations on a particular channel or on the particular package. **No.**
IMCL: The complete log is available and can be selected for any period. Sufficient that this data is available.

Hathway... This information is related to the subscriber which is available in SMS subscriber's history.

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

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.

IMCL: Ideally yes, though “on-line” support has been found equally effective.

Hathway...Yes.

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ANNEXURE 2

Enclosed separately