

MSM DISCOVERY (P) LTD.

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Date : 09.01.2009

To
The Principal Advisor (B&CS)
Telecom Regulatory Authority of India

Dear Sir,

We are thankful to the Hon'ble Authority to afford us an opportunity to tender our views with regard to the Consultation Paper on Quality of Service Issues for Cable TV Services in Non-CAS Areas and for DTH Services.

Our paragraph wise remarks to Chapter IV "Issues for Consultation" are enclosed herein for the Hon'ble Authority's kind perusal and consideration.

In the event of any clarification being required, kindly revert.

Thanking You
For MSM Discovery (P) Ltd

Pulak Bagchi
Senior Manager – Legal and Regulatory Affairs
Contact: 09769541616

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Chapter 4. Issues for Consultation

4.1 The issues for consultations and our responses thereto are summarised below:

For Non-CAS Cable Services:

4.1.1 Please offer your comments on the areas and parameters of Quality of Service which need to be covered in such regulations (refer para 2.16)? Please offer comments whether QoS parameters should also be made applicable to voluntary CAS networks in non-CAS areas. If yes, then please indicate what should these parameters be.

Comments:

1. The existing QOS Regulations for CAS and DTH are substantially comprehensive enough, MSMD, concurs with Authority that the issue is more of enforcement rather than that of parameters. The existing parameters should be extended to Non CAS/Voluntary CAS networks as the beneficiaries shall be the end users namely subscribers, to whom networks being Non CAS/Voluntary CAS hardly matters. The other parameters that merit the Authorities' consideration are underlined hereinafter.

3. Temporary blacking out of Channels or taking the same off air by MSOs is also a matter of concern. Such Temporary Blackout occurs when there are disputes with a Broadcaster regarding Carriage Fees among others. It is requested that the Hon'ble Authority brings in appropriate Regulations that prohibit such black outs and initiate appropriate action when so informed by the Broadcaster concerned. In such cases Subscribers are not at all in a position to prove such blackouts, while a Broadcaster may be able to do so, by way of recordings and other means on receipt of complaints in this regard from subscribers.

4. The existing QOS Regulations presently or proposed to be made applicable to DTH should also be made applicable for MSOs/LCOs in Non CAS, CAS, Voluntary CAS - *mutatis mutandis* and also vice versa.

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5. There have been instances where it has been found that the minimum numbers of Pay Channels that have been stipulated by TRAI are not being carried in many NON CAS areas on the plea of limited bandwidth. Though subscribers are being charged with more than the maximum Fees laid down by the Regulations. Exorbitant carriage fees are demanded for carrying Channels in such areas. In the end it is the subscribers who lose out. MSMD requests the Authority to come up with Regulations that create an enabling environment and mechanism for technology upgradation. This can be done by mandating compulsory adoption of State of the Art Compression Technologies that are now available in the market and making it mandatory to invest in infrastructure to augment capacity for carrying greater number of Channels. It is a fact that the Honble Authority has attempted to facilitate and protect Operators who are content aggregators as well as Carriers of Signals through and by way of various Regulatory stipulations. Perhaps it is time that such facilitation and protection is also coupled with some obligation for the sake of subscribers. The Bureau of Indian Standards may also be pressed into service to lay down the specifications for such Equipments that facilitate Compression of Signals over limited bandwidth without compromising on signal quality within acceptable thresholds and also identify areas where further investments would help to enhance capacity. However laying down a Standard is fraught with risks as standardization has inevitably led to hacking and piracy. For this purpose it is imperative that industry and international best practices be considered and only those vendors/OEMs be permitted to supply such equipments in India who have proven credibility in the international market and whose technologies are either cutting edge or Next Generation. Periodical upgradations of systems are needed to bring the same at par with State of the Art. MSMD requests the Authority to come up with regulatory formulations that would ensure such regular up gradation and also specify the periodicity thereof in order for Operators to enjoy continued Regulatory protection and facilitation. In the absence of such Regulatory formulations - India shall continue to be in the dark ages of technology with subscribers suffering and carriage Fees being widespread and perpetually on the rise, with no incentive whatsoever to upgrade systems. New Channels that do not have the ability to pay carriage fees nor have the ability to attract much advertisement revenue, ought to be provided with a level playing field as well, so that subscribers are not deprived of novelty and innovation.

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6. MSMD attaches 3 articles taken from authoritative sources to illustrate the global attention paid to compression issues even while rendering signals on Analog mode. The same are attached herein as Annexures and numbered as follows:

- (1). A Lasting Compression Standard – Craig Birkmaier (Annexure I)
- (2). FCC Adopts Dual Carriage, Program – Access Items: John Eggerton.
- (3). New FCC Rules assure local TV presence on analog cable tier after digital transition.

4.1.2 In particular, comments and suggestions are invited for effective and transparent monitoring and implementation of proper billing, to protect consumers' interests.

Comments: MSMD believes such monitoring and implementation may be conducted periodically by the Nodal Officers of MSOs as described hereinafter. The justifications for such measures have been tendered at 4.1.3 and 4.1.4 *infra*. Measures earmarked therein may be adopted for monitoring and implementation purposes. Suitable recommendations may be made to enable Nodal Officers of MSOs to conduct such monitoring and ensuring implementation and as a corollary, suitable recommendations may be made for adoption in Interconnect Agreements by and between MSOs and LCOs to facilitate the same. LCOs should also categorically undertake, represent and warrant to the MSO that they are in full compliance of such requirements and also that in case of any instances of infraction coming to the fore, the same shall be rectified and resolved in a time bound manner. A rebate mechanism to Subscribers should also be recommended to be formulated in the interconnect agreements between MSOs and LCOs and they have to be duly adhered to.

4.1.3 There is an expectation that the State Governments and the Ministry of Information & Broadcasting will extend necessary cooperation in the effective implementation of QoS Regulations. Can you suggest any other supplemental measures for further strengthening the implementation of QOS Regulations?

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Comments:

1. TRAI has stipulated that Telecom Companies, who like MSOs are also carriers of signals, shall designate a two tier system for grievance redressal viz, Nodal Officers and Appellate Authorities. An identical mechanism may be formulated for MSOs whereby MSOs shall have to designate Nodal Officers and Appellate Authorities at each State where they have operations for redressal of subscriber grievances against LCOs in that State. MSMD further recommends the appointment of an Ombudsman in TRAI who may be assisted by an appropriate number of other officers and also some members of Staff.

2. Broadcasters generate Content which they supply to Distributors of TV channels viz. MSOs/DTH. They also allow entities a platform to advertise their products and services so that subscribers are kept informed. In Non CAS, MSOs distribute signals to their direct subscribers and to LCOs that have linked up with them. LCOs in turn distribute signals to their subscribers. The value addition of MSOs lies in content aggregation from various broadcasters and then in their carrying the signals of TV Channels. Broadcasters are charged for Carriage which Charges are not usually shared with LCOs . There is also a par-taking of the share of the subscription fees by the Operators. MSMD thus recommends that MSOs may be cast with the responsibility of ensuring QOS compliance by LCOs who are linked with it, as their responsibilities are towards both, the Broadcasters as well as Subscribers. MSOs may be requested to look into this area to contribute something of value to the Distribution Chain. More so as the MSOs have a better understanding, knowledge and experience of the area surrounding and adjoining their Head End locations from where they serve the LCOs in the area. MSOs also exercise some degree of persuasive control over the LCOs which no other actor/player in the entire Distribution Chain can be said to command. It is imperative that Subscriber grievances are thus resolved in a spirit of co-operation between the different Distributors of Channels namely the MSOs and LCOs. Necessary provisions could be recommended by TRAI to be included in the Interconnect Agreement between MSOs and LCOs to enable and facilitate this mechanism.

3. PROCEDURE:

(1) Complaints may be made by subscribers to the Local Cable Operator with a copy to the Nodal Officer.

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- (2) In the event LCOs take their feed from more than one MSOs the Nodal Officer who receives the Complaint shall forward a copy of the same to the Nodal Officers of the other MSO(s) supplying feed to such LCOs.
- (3) Accordingly all the MSOs supplying feed to such LCO should get involved in the process.
- (4) The subscriber shall initially take up the matter with the Nodal Officer.
- (5) For redressing grievances of subscribers being served directly by MSOs, the same procedure shall apply.
- (6) If the Nodal Officer fails to redress the grievance within a specified time period, the Subscriber may approach the Appellate Authority.
- (7) If Appellate authority also fails to redress the grievance in a time bound manner, the subscriber concerned may make an application before the Ombudsman.
- (8) An appropriate Fee may be stipulated per complaint that shall have to be paid by the complainant by way of purchasing Postal Order or issuance of Demand Draft payable to the Authority.
- (9) This shall ensure that only serious complaints are made before the Ombudsman.
- (10) Remedies in the form and shape of rebates to consumers should be prescribed. In extreme cases recommendations may be made for cancellation of license/registration. or even taking over by MSO/adjacent LCO of connectivity.
- (11) Thus MSOs may also be allowed to directly cater to such subscribers in the event an LCO proves to be recalcitrant.
- (12) Where dual or multiple MSOs are involved, in cases where the LCO had been availing more than one feed, the MSOs may decide among themselves the way forward.
- (13) Resolution of complaints should be in a time bound manner.

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(14) Consumers may, in addition, also pursue their remedy before the Consumer Forum.

(15) In cases where Nodal Officers/Appellate Authorities are found to be lacking in efficacy, the Ombudsman may take up the matter with such Nodal Officers and Appellate Authorities and take appropriate measures.

(16) Continued infraction may result in TRAI initiating prosecution or recommending cancellation of licenses/registration.

(17) The office of the Ombudsman in TRAI may be entrusted with i. preparation, compilation and publication of data, statistics and further information regarding infractions and violations on the part of Operators and the resolution thereof, and ii. the power, authority and responsibility of an apex grievance redressal body. It is submitted that the Ombudsman employ mediation and conciliation as dispute resolution mechanisms and only in cases of extreme nature should it go in for issuance of mandatory directions.

4. TRAI, on the telecom side, has been conducting extensive surveys on consumer satisfaction through auditors appointed for the purpose. A similar exercise may be conducted for Subscribers of TV channels as well and the results published and put in the public domain. The office of the Ombudsman in TRAI may take a lead in such initiatives.

5. MSMD has perused the Order issued by the Authority and the intimations to several State Governments whereby TRAI has delegated authority to certain persons including Authorized Officers appointed by MIB, District Administration, and Police Commissioners. But Section 33 of the TRAI Act 1997 says:

“33. The Authority may, by general or special order in writing, delegate to any member, officer of the Authority or any other person subject to such conditions, if any, as may be specified in the order, such of its powers and functions under this Act (except the power to settle dispute under Chapter IV and to make regulation under section 36 as it may deem necessary. (emphasis ours)”

6. Monitoring bodies appointed under the Cable TV Act by MIB are accountable to the MIB. Police Commissioners and District Administration are appointed by and are accountable to the State

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Government. MSMD fears that delegation by TRAI to persons over whom TRAI has practically no control or whose control is vested on some other Persons, could be counterproductive and unreciprocated, even if such delegation is in pursuance to such persons' consent.

4.1.4 Please offer your view on any other issues which will make the Regulations more complete and effective.

Comments: MSMD is of the opinion that TRAI could make recommendations in the Interconnection Agreements between MSOs and LCOs to contain provisions making it mandatory on the part of the LCOs to compulsorily act upon requests received from Nodal Officers to redress particular grievances of subscribers. Consequences for large scale infraction/violation on the part of LCOs may also be laid down, including taking over of the LCO's network (including connectivity) by the concerned MSO at prices to be determined mutually or by TRAI, or the connectivity of such LCO being transferred to another LCO linked with the concerned MSO. Where more than one MSOs are involved like in cases where the LCO had been taking feed from more than one MSO, the MSOs may then decide among themselves how to give effect to the above formulations by way of carving out the network and connectivity amongst themselves. It is also advisable that TRAI specifies some thresholds for eligibility to operate as an LCO/MSO, besides simply having a Registration being done in a Post Office. Such eligibility should also be subject to periodic scrutiny.

For Direct to Home Broadcasting Services:

4.1.5 Whether the DTH operators should be specifically prohibited from dropping of channels from a subscription package for a subscriber for six months from the date of enrolment of that subscriber, if the channel continues to be available on their platform.

Comment: MSMD believes that the concern of the Authority is well placed. However MSMD is of the opinion that the existing Clause 9 of the Direct to Home Broadcasting Services (Standards of Quality of Service and Redressal of Grievances) Regulations, 2007 already covers the case by having incorporated "...change the charges to the disadvantage of the direct to home subscriber ...". However an appropriate Explanation after the said Clause 9 may be inserted if further clarification is desired. It would be very difficult to lay down

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an exhaustive list of all such instances where a DTH operator changes charges to the disadvantage of the DTH subscriber. However there needs to be a protection inbuilt for Broadcasters as well that such dropping of Channel(s) is only in pursuance to RIO or a Contract with the Broadcaster(s) coming to an end and not for any other extraneous reasons.

4.1.6 Within this period of six months, in case the channel ceases to be available on a particular DTH platform, then whether it would be appropriate to have a mechanism of reducing the subscription charges by an amount equal to the wholesale a-la-carte rate of that channel. *Alternatively*, can you suggest any other methodology for such compensation to the subscriber? Should such compensation be paid/adjusted even when one channel in a package is dropped, and it is replaced/substituted by another channel so that the total number of channels in that package is not affected?

Comments: Replacement/substitution shall not serve the Subscriber's purpose as he shall be opting for a package of Television Channels which carries a value proposition for him. He derives this value from the individual values that he attaches and ascribes to each of the channels that comprise such package. Also an established pay channel in a package may be replaced and substituted by a Channel which is Free To Air or by a relatively new entrant. Ensuring that the total number of Channels post replacement continues to be that what it was prior to replacement may not, in the opinion of MSMD, serve the Subscriber's purpose. As an alternative the DTH operator may serve prior notification to its subscribers who have subscribed to a particular package about any channels that may be moving out from such package, and also give the Subscriber an option to exercise choice by picking up any channel from a range of channels which the Subscriber was not earlier availing, as a replacement/substitute for the Channel that shall be moving out of the package. In the event the subscriber elects not to exercise the option, his charges may be reduced by the average price of such Channel which may be derived as follows:

Average Price of the Channel (A) = Price of the Package charged by the DTH Operator (P) / Number of Channels comprising the Package (N).

A deduction to the extent of whole sale ala carte price of the Channel, as has been suggested by the Authority, shall not be reflective of what

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the subscriber had been paying all along during the period of subscription. This is because the price that a DTH operator charges for a Channel usually includes a substantial margin over the whole sale ala carte price of the Channel.

4.1.7 Whether the subscribers should also be required to subscribe to any channel/ package for a certain minimum subscription period as in CAS areas. If yes, what should be such minimum subscription period?

Comment: Contractual dispensations of a Commercial nature generally have a minimum tenure of One Year. This is because “Certainty” is one of the Key ingredients of any Contract. Both parties need to be secure in the knowledge that the bargain that they have struck shall continue to be available to them for a minimum period. The Authority has itself accepted this reality in the Standard Interconnect Agreement promulgated by it for CAS areas where the term has been specified for one year. Though Interconnect Agreements pertain to a different realm than that of Quality of Service, yet the underpinning principle remains the same. MSMD therefore is of the opinion that the minimum period should be for one year and in any case not less than six months. However lesser durations may be permitted if Special Events are telecast by Broadcasters in pursuance to a flexi – pricing mechanism or for any new premium channels or channels with premium niche content, in which case the Broadcaster may be permitted to charge a premium over the existing administered rates for such duration of the special event or for such premium channel or channels with premium content.

4.1.8 Whether there is any justification for visiting charges for “no signal” complaint by the subscribers? If yes, should there be a ceiling on such visiting charges for complaints of “no signal”?

Comments: MSMD concurs with the authority that an Annual Maintenance Contract shall effectively take care of these issues. There may be a need to ensure that provisions for Warranties are in place. Visiting Charges should be under forbearance beyond warranty period for issues other than “No Signals”.

4.1.9 Similarly, should any ceiling be placed in respect of visiting charges for repair and maintenance of CPE for DTH services?

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Alternatively, should DTH operators be required to offer Annual Maintenance Contracts (AMCs) to their subscribers?

Comments: MSMD concurs with the authority that an Annual Maintenance Contract shall effectively take care of these issues. There may be a need to ensure that provisions for Warranties are in place. Visiting Charges should be under forbearance beyond warranty period for issues other than “No Signals”.

4.1.10 Can you suggest some form of AMCs for DTH Service covering all aspects such as repair & maintenance charges for CPE, visiting charges, attending “no signal” complaints, etc.?

Comment: Warranties provided by OEMs of STBs should be passed on verbatim to subscribers. AMCs may be developed by the Distributors of TV channels incorporating industry and international best practices.

4.1.11 Whether the service providers should be required to make available toll-free numbers for recharge calls for prepaid accounts?

Comment: Yes, this would be a small price to pay for ensuring customer loyalty and retention.

4.1.12 Whether the request for suspension of service for full calendar months only should be entertained?

Comment: Broadcasters should not be victimized for the DTH Operator suspending services on its own accord. Further MSMD submits that the Subscriber base considered by it and usually other Broadcasters is an Average Figure for the month. Accordingly the changes of subscribers and suspension of services in a given month are averaged out in so far as the Subscriber Base is concerned. Thus for example, If a DTH Operator has an Opening figure of 60000 subscribers. During the Month it acquires 100000 subscribers. Assuming all the 60000 Subscribers in the Opening figure quit the Platform towards the end of the month, resulting in 100000 Subscribers being the closing figure, MSMD shall get paid only for 80000 Subscribers (Average Subscriber Base = Opening + Closing Subscriber Bases / 2). In contrast the DTH Operator shall be recovering payment from the entire 1,60,000 subscribers in the given month at the full monthly retail rates that it charges its subscribers.

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In view of these, MSMD requests the Authority not to consider such issues that are bereft of materiality. Micro Management though desirable may not always be achievable, practicable or equitable, when one looks at the broader picture. Further no DTH Operator has submitted any data that could shed light on the magnitude of the problem. We do not live in a perfect World; let us not expect the Cable and Satellite Industry to be an exception. The Authority has already enacted Regulations which are wide ranging, and all pervasive with an aim towards ensuring equity and equality in absolute terms. Whether such effort has paid off or whether this has resulted in all Players being relatively well off or worse off than when it all started or whether we are anywhere near an ideal state of affairs are questions which perhaps are debatable and have no universally acceptable answer.

4.1.13 Whether tariff plan or subscription package changes requested by the DTH subscriber should be accepted and implemented immediately or from the start of next billing cycle for DTH subscriber.

Comment: There should not be any change in Tariff or Subscription package for atleast 6 months. However as stated before, an enabling mechanism has to be created for Broadcasters, so that they have the requisite freedom to introduce niche/premium content at rates above the administered ones for limited periods. There has to be a level playing field between the Operator and the Subscriber. If an obligation has been cast upon the Operator not to change tariff plans or subscription packages for six months, the same has to be reciprocated by the Subscriber as well. Changes should be made only from the next Billing Cycle as is the case of telecom. This is because any Billing System no matter how state of the Art , shall not be altogether devoid of scalability constraints.

4.1.14 Whether advance notice of minimum 30 days should be given by DTH operators to a DTH subscriber before terminating his existing tariff plan provided that no tariff plan can be terminated within the contracted period, if any, for that package or within six months of enrolment of that subscriber to that package.

Comment: MSMD concurs with the Authority's suggestion of a 30 day notice period.

A lasting compression standard?

Mar 1, 2006 12:00 PM, BY CRAIG BIRKMAIER

Given the incredible change in pace of all things digital, one might speculate about the half-life of any technology that can benefit from the ongoing geometric progression in processing power, memory and storage capacity, network bandwidth, and so on. For example, the following question came up recently in the Open DTV Forum, an e-mail discussion forum on digital television issues:

“Is there a Moore's Law regarding codec efficiency, or is there a theoretical limit to the improvements we can expect in digital compression algorithms? If so, then how far away from that theoretical limit is MPEG-4/AVC (aka H.264)? Is MPEG-4/AVC to the point that it really could be a standard that could last for 20 years?”

Lasting compression

Video compression has been a fact of life since television hit the airwaves about seven decades ago. One might ask how this is possible, because digital television broadcasting has only been a practical reality for the last decade of those seven. The answer is simple: Video compression need not use digital signal processing techniques to reduce the amount of information that is transmitted.

The true measure of compression efficiency lies in the ability to reduce the amount of information delivered to a receiver in a manner that limits the distortions and artifacts perceived by the viewer. One measure of the theoretical limit faced by any compression technique is known as the rate/distortion boundary (in layman's terms, how much we can squeeze before the distortions become too objectionable to the human observer).

Given the high level of compression artifacts seen today on virtually all digital television distribution platforms, one could properly surmise that this limit is exceeded on a routine basis. Then again, for those of us who have been around for some or all of the past seven decades, we know limits on image quality, artifacts and distortions have always been a problem for television broadcasters.

Over those decades, the analog television standards used throughout the world have relied on analog compression techniques to bring moving images into our homes. Interlace is a powerful compression technique, reducing the amount of information transmitted by half.

Our analog broadcast standards place hard limits on the frequency response of the analog signals that are transmitted. For several decades, it has been possible to capture significantly more detail in 525- and 625-line television systems than can be delivered via NTSC and PAL. This became obvious in the '80s when analog component video processing gear became a practical alternative to composite signal processing. It happened again when analog component outputs from DVD players made it possible to deliver the full quality possible with 525/625-line component video to consumer television displays.

When we added color to TV, we had to squeeze even harder. Where one black and white signal once filled an entire 6MHz to 8MHz channel, we now needed to deliver three components. Only a tiny fraction of the color information from a camera is delivered using NTSC and PAL compression.

While these analog compression techniques imposed hard limits on delivered image quality, we became accustomed to the inherent distortions, even as television images improved over the years. It took about five decades to fully exploit the capabilities inherent in these analog television standards.

In contrast, it took less than a decade to fully exploit MPEG-2, the first digital compression standard used to deliver television pictures to the masses. Now the question is whether MPEG-4/AVC (aka H.264) can be expected to last as the standard for two decades.

The half-life of a standard

Analog television is still going strong. While President George W. Bush just signed legislation setting February 17, 2009, as the official shutoff date for analog television broadcast in the United States, many industry observers question whether this deadline will be any more real than others that have come and gone.

To be certain, devices that will support the signals flowing through that little RCA connector will not disappear for decades to come. Analog cable, analog television translators and huge libraries of analog programming will not disappear on any certain date.

The same is likely to be true for MPEG-2, MPEG-4/AVC and whatever comes next. Legacy standards will live for decades, even as they are replaced by the next generation. A useful threshold to consider when thinking about the half-life of a digital compression standard is that point in time when it becomes possible to realize a 2:1 improvement in compression efficiency, i.e., the ability to deliver the same picture quality with half the bits.

Gary Sullivan, a video architect with Microsoft, has worked extensively in the ITU and MPEG on video compression standards. As chairman of the Joint Video Team, a

collaboration of the ITU and ISO/MPEG, Sullivan played an important role in the development of MPEG-4 part 10 (AVC), which is also known as ITU standard H.264.

When asked how far today's technology is from the theoretical limits on compression efficiency, Sullivan replied, "I think nobody knows the answer for sure." However, he is confident that we can achieve at least another factor of two in practical compression efficiency improvement for video (i.e., a 50 percent reduction in bit rate with similar video quality relative to a good use of H.264/MPEG-4 AVC syntax).

But Sullivan cautions that it may take a number of years before we figure out how. His guess: between five and 15 years. That puts the estimated time necessary to get the next solid factor of two in coding efficiency into the same 10-year ballpark as the last time around — with MPEG-1 and MPEG-2 standardized in 1993 and 1994 and H.264/MPEG-4 AVC standardized in 2003 with its fidelity range extensions in 2004.

Out of sync

So here we are, some three years from the date that analog television broadcasting is supposed to end in the United States, and broadcasters are being told that their new digital television standard, built on MPEG-2 video technology, is already dated. The direct broadcast satellite services are migrating their customer base to H.264/AVC, to take advantage of the bandwidth savings so that they can deliver (H)DTV broadcasts to most local markets across the country. Cable is certain to follow.

H.264/AVC is being deployed rapidly for Internet download applications. It is supported natively by Apple's QuickTime media architecture and is the format used by the company's video download service and iPods. Most videoconferencing systems and some key cellular and mobile TV services are using one of the low complexity profiles of H.264/AVC.

H.264/AVC is not the only new game in town. There is the new SMPTE 421M VC-1 standard based on Microsoft's Windows Media 9 codec design, as well as proprietary codecs such as On2's VP series that are popping up in places like Flash, AOL and Skype.

By the time broadcasters are expected to turn off those NTSC transmitters in 2009, it is likely that they will be a generation behind their competition. To make matters worse, the ATSC standard has poor support for the one aspect of over-the-air television where broadcasters have a competitive advantage over tethered services: the ability to deliver bits to portable and mobile receivers.

Attendees at next month's NAB2006 will have the opportunity to see how much the landscape of digital television has evolved in just one decade. And they will have the opportunity to see where we may be in another decade, as today's emerging technologies will have run their course and begin to yield to whatever comes next.

Broadcasters might question where the opportunity is for *them* in all of this. Here's a clue: It has nothing to do with government subsidies for set-top boxes that implement dated technologies.

Is the broadcast industry's glass half empty or half full? Have we reached the theoretical limit on squeezing more profits from broadcasting as we know it? What do you think?

Craig Birkmaier is a technology consultant at Pcube Labs, and he hosts and moderates the OpenDTV Forum.

FCC Adopts Dual-Carriage, Program-Access Items

Federal Communications Commission Extends Program-Access Rules Five Years, Imposes Dual Carriage on Cable Operators

By John Eggerton -- Broadcasting & Cable, 9/12/2007 8:47:00 AM

The [Federal Communications Commission](#) voted unanimously -- with some partial dissents -- to extend the [program-access rules](#) for five years, to toughen its program-access-complaint process and to mandate that cable make must-carry TV stations' digital signals viewable to all customers, analog and digital, after the [Feb. 17, 2009, switch to all-digital broadcasting](#).

But talk about 11th-hour decisionmaking: That relative unanimity was hard-won, coming after a delay of more than 11 hours, with Tuesday's 9:30 a.m. meeting finally beginning at 8:40 p.m.

[FCC chairman Kevin Martin](#) apologized for the delay and attributed it to achieving compromise on key issues. Among those key issues were the proposed changes to cable program-access rules and mandated cable carriage of TV-station signals after the switch to all-digital.

"I do think that it is important for the commission to always try to strive to work together to find compromises whenever possible," he said, "and I think that the benefits of those compromises I hope outweigh the inconveniences it may cause occasionally," adding that this would be the case with Tuesday's delay.

That compromise appeared to include separating out some contentious proposals into separate inquiries, which essentially allowed the commissioners to defer a decision on those until a later date.

In order to ensure that all must-carry TV stations are viewable by all subscribers after the switch to all-digital broadcasting, cable operators will be required, in addition to carrying digital signals, to convert digital signals to analog, either at the headend or with converter boxes, for their analog cable customers. [Cable had called that a "dual-carriage" mandate at odds with earlier FCC rulings, while broadcasters had framed it as a clarification of the existing "viewability" mandate.](#)

The commissioners framed it as addressing the viewing needs of analog cable viewers, just as it is working to ensure that no analog broadcast customers lose their pictures.

Whatever you call it, cable operators must carry broadcasters' HD signals in HD, and in at least as high a resolution as they carry other programming, which is to ensure that cable operators do not favor their own HD programming over that of broadcasters.

The FCC set that mandatory carriage requirement to sunset in three years, mirroring a voluntary three-year carriage agreement the cable industry was reportedly ready to offer up. But it also said that it would review the state of cable's transition from analog to digital before that 2012 date to see if the requirement should be extended and it would entertain waivers for smaller cable operators, which would be harder-hit by the financial and technical burdens of the carriage requirement.

But in a victory for cable in general, the commissioners did not require cable systems to carry "all bits" that a broadcaster delivers, as had been initially proposed as a tightening of the mandate that cable not "materially degrade" the broadcast signal. Broadcasters had pushed for the "all bits" change to the degradation definition.

That definitional change would have put a big crimp in cable's ability to use compression and switched-digital techniques to help make room for both broadcast signals that met the FCC's current requirements of "no material degradation" and still have bandwidth to provide the broadband services the FCC is trying to encourage.

"We are pleased that the FCC's action today adopts cable's carriage plan," [National Cable & Telecommunications Association president Kyle McSlarrow](#) said of the FCC decision, "and we are pleased that the FCC dropped an ill-considered mandate that would have turned back the clock on decades of digital technology innovation. We continue to urge the FCC to act quickly to take into account the special circumstances of very small systems and to make clear that those systems have the flexibility to serve all of their customers without a one-size-fits-all mandate."

The commission put off to separate inquiry questions on whether to extend the viewability mandate to stations that elected to negotiate cable carriage rather than just those that elected must-carry.

On the program-access front, the commissioners, as expected, extended the program-access rules for another five years, concluding that cable operators still had the ability and incentive to favor affiliated cable programmers by denying programming to competitors, like satellite companies.

The FCC also took steps to tighten the program-access-complaint process.

Those changes included requiring the subjects of program-access complaints to turn over documents directly to the opposing party without FCC mediation. [Commission Democrats Michael Copps and Jonathan Adelstein](#) both argued that this was opening up the discovery process too far, although Copps added that if the commission was going to make the objects of complaints produce more documents, it should do the same for other complaints, like challenges to TV-station-license renewals.

The commission put off for another day the more contentious proposal for making baseball-style arbitration (in which each party submits a best final offer) part of the program-access-complaint process, although it did make voluntary arbitration an option, with the FCC suspending any action on the complaint during that arbitration. The inquiry will also look into whether to extend the prohibition on exclusive contracts to terrestrially delivered programming services.

The rule only applies to satellite-delivered services, which left a loophole for regional sports networks. The commission also wants to know whether programmers have been moving to terrestrial delivery as a way to bypass the program-access rules.

New FCC rules assure local TV presence on analog cable tier after digital transition

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The FCC Sept. 11 adopted rules to ensure that analog cable subscribers continue to receive broadcast TV stations following the completion of the digital television transition on Feb. 17, 2009.

Cable operators are required by law to make the primary video channel of local broadcasters viewable to all subscribers. The rules adopted this week allow cable operators to comply by either carrying broadcasters' digital signal in analog format or carrying it only in digital so long as all subscribers have the equipment needed to view it on their sets. The requirement runs until February 2012 when the rule will be reviewed.

Small cable operators — those with an activated channel capacity of 552MHz or less — can request a waiver of the new rule.

The FCC action also reaffirmed the commission's current material degradation standard and the requirement that cable systems must carry HD broadcast signals in HD format. Cable operators must carry broadcast signals so the picture quality is at least as good as the quality of any other programming carried on the system.

Reacting to the release of the new rules, both the National Cable & Telecommunications Association (NCTA) and the National Association of Broadcasters (NAB) expressed their support.

In a statement released with the new rules, Chairman Kevin Martin said the rules prevented millions of viewers who watch analog cable television from becoming disenfranchised following the DTV transition.

According to the chairman, without the rules, "some broadcast stations would have become unwatchable" on the 120 million analog TV sets in the 40 million homes nationwide that subscribe to analog cable TV service.

While the new rule allows the smallest of the nation's cable operators to seek a waiver, at least one commissioner expressed a desire to see system upgrades. "We encourage cable operators to upgrade their systems and deploy solutions, such as switched digital, QAM or IPTV, to increase system capacity for more channels, enhanced services and faster broadband speeds," said Commissioner Jonathan Adelstein.

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