

**Public comments to GN Docket Nos. 09-47, 09-51, and 09-137; and CS Docket No. 97-80**

**Comments —NBP Public Notice # 27**

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A. The answer to "A" is easy: it is because the standard for HDMI allows the MVPD to arbitrarily turn on & off the ability of the consumer to process the signal through an "unapproved" device (such as a consumer's PC). The MVPD can also reduce the quality of the signal of a high definition source to that of a standard definition source on analog outputs that may be available on the cable box. Since the only option available to the locked out digital HDMI signal is analog, and the analog signal very well may be severely degraded (as compared to the HDMI signal), there is no way to guarantee from one channel to the next whether the consumer will be able to get a quality image using the analog interface. And this, or course, defeats the whole purpose of a high definition source/display system. I believe the FCC is the entity that approved of these limitations in capability, correct?

For example, I have a MythTV-based Linux PC system that is unable to access the basic & expanded basic program sources through the Firewire port on my Cox cable box even though those same channels are available as un-encrypted sources via an analog tuner. Also, I can only access 53 channels (thankfully most are HD) through the firewire port out of 147 channels (93 standard & 54 HD channels) that I am able to tune in via my cable box. I can only access 19 unencrypted channels using a clear-QAM tuner -- even though the Limited Basic & Expanded Basic tiers should be available in digital format (my cable box is 100% digital proving that those same channels are being transmitted as encrypted digital signals unavailable to me & my MythTV system). The FCC almost got it right with the mandate for PC compatible CableCards. But the CableCard was destined to FAILURE due to the fact that PC OEMs using MS Windows were the only ones allowed to integrate the technology. There are a growing number of consumers running Mac OS & Linux that were prevented from using CableCard technology, thus limiting usefulness of the technology. Until a PC friendly interface medium is mandated by the FCC that applies across all types of MVPDs, the convergence of MVPD media with PC/IT will never be realized. And remember, people want to be able to take their recordings with them on their phones & iPods; so locking the content in DRM will not work unless the DRM is globally accepted & implemented (not likely to happen).

A.1. Again, the inability to know for a fact what content (channel) will or will not be accessible on a given output of a cable/satellite box.

A.2. Encryption on the firewire output & the HDMI output prevents access to content that consumers have subscribed to.

A.3. There is no equivalent to the Cablecard for satellite TV. Cablecards are hard/time consuming to setup. Most cable companies won't even allow a consumer to attempt to set it up without assistance (and the associated \$50 fee). And the customer is not allowed to own a Cablecard (so they have to pay for it monthly which some consumers take issue with). Without a Cablecard, there is little chance of a video content distributor from being able to access the content a consumer is subscribed to. Another issue is that distributors are less likely than a PC-based appliance (home grown or OEM) to create a device that can access/play all media types. This is sometimes a side effect of conflicts between the media

provider (or it's parent company) and the distributor that may be creating a navigation device.

B. - YES! But you have to address the content access issues (encryption). You also have to ensure the devices are compatible with the portable media devices consumers are utilizing (iPods, smart phones, laptops, etc).

B.1. If the Internet based video sources are the internal sources from the MVPD, I don't believe this goal is obtainable due to the fact that not all MVPDs use IP distribution. If you are more concerned with ensuring consumer access to IP based sources on the Internet, then that is currently being accomplished in limited form today using MVPD provided cable/DSL systems & capabilities built into some DVD/BluRay players and the Western Digital WD TV Live Network-ready HD Media Player (among others). The only problem with most (if not all) of these systems is that they still are not capable of accessing all major IP video sources. The only source that comes close is a PC.

B.2. A potential concern for people watching a significant amount of video over IP is the artificial bandwidth caps put in place by all major broadband providers. This could very well inhibit adoption and utilization, especially with a threat of disconnection for excessive bandwidth consumption.

C. Yes, but only with the buy-in of the broadband service provider. The obvious conflict of interest between a cable system broadband provider & an IP based video service provider would need to be addressed/overcome. Otherwise, the broadband provider would/will likely block access to the broadband video service due to the potential loss of profits stemming from customers canceling cable TV service.

D., See "A", above.

D.1. I've found that the most feature rich (or feature complete) video playback device is an open source device, or a device that openly accepts plugins for adding new capabilities. Open source software has the advantage, though, as developers work together (generally speaking) to add the new capabilities that one or more developers want. One problem with open source is they can't legally access Cablecard specs to integrate that one piece of the pie. Microsoft, as the only PC company with the ability to utilize Cablecard technologies, can address this one piece of the puzzle; but they are not likely to address all pieces (such as DIVX, XVID, or VIDEO\_TS file/folder compatibility). Apple is only interested in selling consumers content from their store. Content created/obtained by the consumer is not really welcome on an AppleTV (I know, I have one). Same goes for the PlayStation 3 (again, I know because I have one). The only solution that comes close is TIVO (which is exorbitantly overpriced) or MythTV (which is still in it's infancy). In order to eliminate those obstacles, remove the obstacles you put in place (or you have allowed to be put in place), such as media encryption, or at the very least remove the limited access of developers to implement a Cablecard solution.

D.2. Yes; regulate the industry.... Require specific customer access rights to content for which they've subscribed regardless of delivery methods. The industry can design new products that meet the requirements of the MVPDs while also allowing consumers access to the content they are paying for. The only problem now is they aren't required to do so (so they have no incentive).

D.3. - I believe it would as long as the interface would allow the consumer access to all of the content for which he has subscribed. I understand that there may be some limits on pay-per-view & premium channels; but those limitations should be few & far between. The MVPDs could develop an IP-based interface into their hardware that would allow the consumer to access the content for which they have subscribed. The IP interface needs to be platform agnostic (unlike Cablecard) so that it will work -- with no fuss -- on any PC (or other compatible networkable device). If the IP-based video standard is not compatible with all PCs (Windows, Mac, Linux, UNIX, etc), then the standard will end up being another Cablecard fiasco (i.e. failure).