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July 28, 2005

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: Written Ex Parte Communication in MB Docket No. 05-49

Dear Ms. Dortch:

Ten days ago, representatives of the broadcast industry asserted to the Commission that "the technology and equipment currently exists that permits satellite carriers to determine on a moment-by-moment basis whether a local station is broadcasting a high definition (HD) programming stream or one or more standard definition (SD) programming streams and whether a significantly viewed distant station is broadcasting an HD stream or one or more SD streams and to tailor the 'equivalent bandwidth' requirement of the statute accordingly."[1]

The broadcasters provided the contact information for Joel Wilhite of Harmonic, Inc. ("Harmonic") as a "third-party manufacturer of the relevant equipment" that would be able to make such "moment-by-moment" determinations.[2] As DIRECTV, Inc. ("DIRECTV") has repeatedly expressed its vigorous opposition to the broadcasters' equivalent bandwidth proposals in this proceeding, it attempted to contact Mr. Wilhite several times over the last two weeks to explore this technology, but without success.

DIRECTV has, however, contacted Mr. Wilhite's supervisor at Harmonic, who was unaware of the broadcasters' letter until we brought it to his attention, and could not provide us details about the technology discussed therein. DIRECTV is, of course, eager to learn about this technology. For the time being, though, DIRECTV does not know what Harmonic's technology does, how it operates, whether it is compatible with DIRECTV's system, and how much it might cost.

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1 Letter from Wade H. Hargrove to Marlene H. Dortch, July 18, 2005 ("Broadcasters July 18 *Ex Parte*").

2 *Id.*

DIRECTV wishes, however, to raise a few more general points about the technical and operational complications associated with the broadcasters' proposal. Even if it exists, the Harmonic technology would address only one aspect of fulfilling the kind of equivalent bandwidth mandate proposed by the broadcasters – namely, monitoring broadcast signals. No matter how good or inexpensive this technology might be, the other tasks associated with a moment-by-moment equivalent bandwidth requirement are simply too complicated, difficult, and expensive for DIRECTV to comply. Moreover, the Commission has yet to address a variety of fundamental compliance issues associated with the broadcasters' proposed rule. Most importantly, each of the theoretical methods by which DIRECTV could attempt to comply with such a rule would create a customer-relations disaster.

As things now stand, DIRECTV would have no choice but to forego digital significantly viewed carriage in most if not all markets rather than try to comply with the equivalent bandwidth requirement as envisioned by the broadcasters. This, perhaps, is what the broadcasters want. But it is not what Congress wanted or intended when it adopted the provisions of SHVERA that give DBS operators the right to carry significantly viewed stations.

* * *

By way of background, satellite carriers are forbidden from retransmitting the digital signals of stations in out-of-market significantly viewed areas unless they retransmit either the "equivalent bandwidth" *or* the "entire bandwidth" of the same-network local station's digital signal.[3] Some broadcasters have therefore suggested that a requirement to retransmit local broadcasters' equivalent bandwidth on a moment-by-moment basis is not overly burdensome. They base this argument on the theory that satellite carriers can always avoid burdensome *equivalent bandwidth* compliance by retransmitting a broadcaster's *entire bandwidth*.

As DIRECTV has previously observed, this suggestion would essentially make satellite multicast carriage a prerequisite to digital significantly viewed carriage.[4] It would, in other words, force DIRECTV to severely limit the number of markets in which it will provide digital local signals in order to carry digital significantly viewed stations. The entire bandwidth provision was meant to be a shield – allowing satellite carriers to retransmit significantly viewed stations even if local stations chose not to use all of their digital spectrum. The broadcasters now seek to use it as a sword with which to obtain multicast carriage rights. Congress never intended – and, indeed, specifically disclaimed – such a result.[5]

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[3] *Implementation of the Satellite Home Viewer Extension and Reauthorization Act of 2004, Implementation of Section 340 of the Communications Act*, Notice of Proposed Rulemaking, FCC 05-81, MB Docket No. 05-49 at ¶ 42 (rel. Feb. 7, 2005); 47 U.S.C. § 340(b)(2)(B).

[4] *See* Letter from Michael Nilsson to Marlene H. Dortch, July 7, 2005.

[5] *See* 47 U.S.C. § 340(i)(4)(E) (providing that "entire bandwidth" shall not be construed "to affect the definitions of 'program related' and 'primary video'").

Setting "entire bandwidth" aside, then, DIRECTV could comply with the broadcasters' moment-by-moment proposal in either of two ways. It could monitor thousands of "pairs" of local/significantly viewed stations and black out each significantly viewed signal whenever it uses more bandwidth than the local signal. Or (at least in theory) it could monitor these station pairs and "downrez" the significantly viewed signal in order to – for lack of a better term – "make" the two signals equivalent.

As DIRECTV reads the broadcasters' letter, there may exist some technology that enables the monitoring of thousands of station pairs in something resembling real time. Many questions remain about the cost and effectiveness of this technology. But for purposes of this response, DIRECTV assumes that the technology is free, could be added to DIRECTV's system immediately, and works perfectly. Even so, complying with the broadcasters' proposal through blacking out or downrezzing the significantly viewed signal would be extraordinarily complicated, would raise a host of compliance issues, and would outrage DIRECTV's customers.

Blacking Out Signals. Suppose that the Harmonic technology "tells" DIRECTV that, at a given moment in time, a significantly viewed signal is using more bandwidth than a same-network local signal (or, to put it another way, that there exists an "equivalent bandwidth problem" between the two stations). DIRECTV could, as discussed earlier, black out the significantly viewed signal until the situation is rectified. But it cannot, of course, simply stop retransmitting that station entirely. If it did so, viewers in that station's own local market couldn't see it. So DIRECTV must black out that station *only in out-of-market significantly viewed areas.*

The only way to black out a station to selected subscribers (as opposed to all subscribers) is through addressing commands only to those subscribers' set top boxes. Simplifying the engineering a bit, DIRECTV would have to develop systems to allow the Harmonics technology to send appropriate "black out" messages to the right set top boxes on a real time basis (along, presumably, with a text message explaining the blackout). It would also have to retrofit set top boxes so that they can receive these messages and respond accordingly. DIRECTV, of course, has some capability to issue "blackout" messages to set top boxes for sports blackouts and the like. But it has no capacity to do so automatically and on a real time basis for stations across the country. Not knowing anything about how the Harmonic technology works, DIRECTV can only estimate that integrating the technology with a system for automatically alerting set top boxes would take years, and would cost many millions of dollars.

DIRECTV would also have to implement changes to its customer service system to enable agents to explain these interruptions to unhappy customers. This, too, would have to be automatic (an agent would presumably have to know that X station is being blacked out for Y number of hours) – again, requiring significant expenditures.

Yet another consideration is DIRECTV's programming contracts. As the broadcasters well know, DIRECTV may not have the rights under retransmission consent agreements to black out stations. It is not clear that a regulation adopting the broadcasters' moment-by-moment

equivalent bandwidth requirement would grant DIRECTV sufficient rights to do so in derogation of existing contracts.

Downrezzing. DIRECTV could also in theory address an "equivalent bandwidth problem" by downrezzing the signal of the significantly viewed station until the problem is resolved. Of course, doing so raises legal questions, as DIRECTV may not downrez for copy protection purposes.[6] But the Commission could always amend its rules to clarify that downrezzing is allowed to facilitate compliance with the equivalent bandwidth requirement.

Setting aside questions of legality, downrezzing significantly viewed stations raises the same set top box, customer service, and retransmission consent issues described above for blackouts. More fundamentally (and for obvious reasons), DIRECTV would have to find a way to downrez significantly viewed stations *only where they are significantly viewed, and not in their local markets*. While this is also a problem for blackouts, solving this problem for downrezzing turns out to be even more complicated.

In theory, at least, DIRECTV could downrez signals to significantly viewed areas in three ways. As discussed below, however, not one of these possibilities makes practical sense.

- One possibility is for DIRECTV to retransmit the significantly viewed signal in two formats – high and standard definition. It could then (again in theory) arrange for set top boxes in significantly viewed areas to switch from the high definition signal to the standard definition signal when told to do so by Harmonic's technology. But this is not a seamless process. Any channel change – including this one – takes on average a few seconds. This, moreover, would require DIRECTV to implement a system for communicating with set top boxes, as described above. It would also take up an enormous amount of capacity on DIRECTV's spot beams. For the same reason DIRECTV cannot always retransmit the entire bandwidth of every local station, it cannot retransmit two versions of every significantly viewed signal. In addition, DIRECTV is not now capable of making set top boxes in significantly viewed areas "force tune" from one version of the signal to another. Such a capability would take at least two years to implement.

- Another possibility is for DIRECTV to retransmit the significantly viewed station in two formats but make only the standard definition format available in significantly viewed areas at all times. This means, of course, that viewers in such areas could *never* watch the station in high definition. Such a solution would also take up additional capacity on DIRECTV's spot beams, as described above.

- A final possibility is for DIRECT to broadcast the significantly viewed station in high definition format and direct set top boxes in significantly viewed areas to downrez the output signal when directed to do so by Harmonic's technology. This raises the same

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[6] 47 C.F.R. § 76.1904(a).

"communicate with the set top box" issues discussed above. It would also require the modification of set top boxes, which cannot now downrez on command. (The same concerns would apply if DIRECTV were to downrez through selectable output control – *i.e.*, by instructing the set top box to use only standard definition outputs when instructed to do so by Harmonic's technology.)[7]

Compliance Questions. Even assuming that DIRECTV could overcome all of these challenges, a moment-by-moment equivalent bandwidth requirement raises a number of compliance questions, none of which have been addressed by the broadcasters or the Commission. For brevity's sake, DIRECTV lists the most salient of them below.

- Can DIRECTV blackout or downrez in the middle of a program? For example, suppose a significantly viewed station is showing a baseball game and a local station is not. If Harmonic's technology tells DIRECTV that there is an equivalent bandwidth problem in the middle of the ninth inning, can DIRECTV wait until the end of the game to black out or downrez the significantly viewed signal?

- How quickly must DIRECTV recognize the presence of an equivalent bandwidth problem, and how quickly must it rectify the problem through blackouts or downresolution?

- What if a station "uprezzes" standard definition content to high definition? Does this count as true "high definition" programming sufficient trigger the equivalent bandwidth provision? (In other words, if the local station is doing the uprezzing, does DIRECTV have to black out or downrezz a significantly viewed station's signal in response? If the significantly viewed station is doing the uprezzing, does that signal have to be blacked out or downrezzed?) What if only some programming (say, commercials) is uprezzed, and the rest is "native high definition"?

- How, if at all, must viewers be notified of blackouts/downrezzing? Must DIRECTV provide this information on screen? In its on-screen guide? How far in advance must it provide this information?

Customer service issues. The above discussion, perhaps, risks passing over the most important point of all – compliance with the broadcasters' moment-by-moment equivalent bandwidth rule will create high levels of dissatisfaction for DIRECTV subscribers. Under one scenario, a customer in New Haven enjoying a New York station in high definition will watch

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[7] DIRECTV would also have to implement internal rules (and/or seek Commission guidance) with respect to downrezzing. Must, for example, widescreen content be cropped to 4:3, and if so, must pan/scan (a method of printing movies for presentation on television that modifies the rectangular theater image by trimming the sides and focusing on significant action within the newly truncated image, http://www.answers.com/topic/pan-and-scan) be delivered to DIRECTV in order to make this work? Would 5:1 channel audio have to be constrained to stereo audio only?

the signal suddenly turn black. Under another, that customer will watch the signal shift to standard definition. Either option will likely impair the functioning of that customer's PVR.

DIRECTV's customers will notice this. They will call DIRECTV to complain. They will call the FCC to complain. And, perhaps, they will switch to their incumbent cable operator, who can carry the significantly viewed station without such restrictions. This is not the outcome Congress intended when it sought to increase "[c]able/satellite comparability."[8]

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Even if Harmonic's technology works beyond DIRECTV's best hopes, complying with a moment-by-moment equivalent bandwidth rule would be expensive and burdensome, if it could even be done at all. Moreover, questions that go to the core of such compliance remain completely unaddressed. And once they *are* addressed, compliance with any such rule will outrage DIRECTV's subscribers.

In such circumstances, the Commission should have no doubt that adopting the broadcaster's proposed moment-by-moment rule would severely limit the number of markets in which DIRECTV would provide digital significantly viewed service, if indeed DIRECTV could provide such service at all. DIRECTV again urges the Commission not to go down a path so radically different from that envisioned by Congress.

In accordance with the Commission's *ex parte* rules, 47 C.F.R. § 1.1206, I am filing a copy of this letter electronically in the relevant docket. If you have any questions concerning this letter, please contact me.

Respectfully submitted,

/s/_____
Michael Nilsson
Counsel to DIRECTV, Inc.

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[8] SHVERA, Pub. L. No. 108-447, § 202, 118 Stat. 2809, 3393 (2004).