

November 15, 2004

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Ex Parte Notice

Re: Carriage of Digital Television Broadcast Signals, CS Docket No. 98-120 (also CS Docket Nos. 00-96 and 00-2); Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices, CS Dkt. No. 97-80

Dear Ms. Dortch:

In accordance with Section 1.1206(b)(2) of the Commission's rules, this letter reports on several meetings that representatives of Comcast Corporation ("Comcast") had with Commission staff on November 12, 2004. Comcast was represented by Dave Fellows, Executive Vice President and Chief Technology Officer, Comcast Cable; James Coltharp, Chief Policy Advisor, FCC & Regulatory Policy, Comcast; and the undersigned, and they were accompanied by William Check, Senior Vice President - Science & Technology, National Cable & Telecommunications Association. They met separately with (1) Jon Cody, Legal Advisor to Chairman Powell, (2) Johanna Mikes Shelton, Legal Advisor to Commissioner Adelstein, and (3) Ken Ferree, Bill Johnson, Rick Chessen (participating by telephone), Tom Horan, Alison Greenwald, and Sarah Mahmood of the Media Bureau.

Mr. Fellows provided a detailed overview of the evolution of cable technology and services. He explained how the technologies used in Comcast's networks have changed, and are continuing to change, to provide the video and data services that consumers expect in a marketplace characterized by vigorous competition and rapid innovation. He reviewed the technical and economic considerations that affect the development and implementation of a "next-generation network architecture," as well as the consumer benefits that will result. He explained how the architecture of cable head-ends is being redesigned and reconfigured to support a growing array of services, provide increased flexibility, and maximize efficiency.

Of the matters covered by Mr. Fellows that are pertinent to the must-carry proceeding, most have been reported in some detail in previous Comcast submissions, particularly that of September 16, 2004. Those points include, in particular, the necessity of continuing to allocate a significant amount of cable plant bandwidth for analog transmission, the benefits to cable operators and to consumers of implementing a simulcast approach whereby channels carried in analog are also carried in digital (he carefully distinguished between simulcasting and "dual must-carry"), the rapid growth in usage of video-on-demand and personal video recorders (and Comcast's expectation that "nonlinear" viewing will reach 40%), the strong

and still-growing consumer demand for data services (including high-speed cable Internet, gaming services, and VoIP) and the concomitant bandwidth requirements (both upstream and downstream), and the importance of allowing market forces rather than governmental mandates to determine the carriage of multiplexed broadcast signals.

With respect to the last of these points, Mr. Fellows affirmed and updated his prior statements regarding the adverse impacts on Comcast and its customers that would result from expanding the must-carry obligation beyond a single programming stream per broadcaster. If the Commission were to require cable operators to carry “all free bits” that each broadcaster might transmit within its 6 MHz of licensed radio spectrum, Comcast would be prevented from making the most efficient use of the bandwidth of its cable plant. Conversely, if the must-carry requirement is limited to a single programming stream per broadcaster, Comcast could -- at times when a broadcaster is not transmitting high-definition television programming -- use the extra bandwidth to deliver video-on-demand content and to “pre-position” content on the personal video recorders that are used by a growing number of Comcast customers.

Two vendors with which Comcast works, BigBand Networks and Terayon Communication Systems, are both capable of manufacturing head-end equipment that uses statistical multiplexing to allow Comcast to “recapture,” and put to other use, any bandwidth freed up when the broadcaster requires less than 19.4 Mbps to transmit a single channel of programming. (This spectrum reallocation is dynamic, so Comcast could use the bandwidth not required for carriage of a broadcaster’s single *standard*-definition program without impacting carriage of a *high*-definition commercial during the same program.) New “channel bonding” technologies, by enabling the bandwidth of several 6 MHz cable channels to be combined, further enhance the opportunities for efficiency gains through statistical multiplexing. Comcast has refrained from ordering the software development required to incorporate these capabilities in BigBand’s Media Router and Terayon’s CherryPicker -- development that Comcast has been advised by one of these manufacturers would likely require only two or three months -- only because of the uncertainty created by this proceeding. Before Comcast can prudently recommend that someone incur these costs, Comcast needs to know first whether the Commission will permit Comcast (and its customers) to enjoy the benefits that will result when this technology is deployed.

Mr. Fellows also discussed the cable industry's efforts to promote development of an extremely low-cost digital set-top box. He explained that such a device would require robust two-way signaling (DOCSIS Signaling Gateway), a common software platform (OCAP), an advanced video codec (such as MPEG-4), and reliable, renewable security. He noted that combining these characteristics in a \$50 box can likely be achieved in the near-term and that this goal could be facilitated by the use of downloadable security, but he stressed that a separate security requirement would pose a major impediment to the development of a \$50 box. He also noted that implementation of the ban could increase costs for consumers who prefer to use integrated set-tops with greater functionality (HDTV, PVRs, etc.). As a result, implementation of the integration ban would delay the digital transition.

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Please let me know if you have any questions.

Respectfully submitted,

/s/

James L. Casserly
Willkie Farr & Gallagher LLP
1875 K Street, NW
Washington, DC 20006
(202) 303-1119

cc: Jon Cody
Johanna Mikes Shelton
Ken Ferree
Bill Johnson
Tom Horan
Alison Greenwald
Sarah Mahmood
Rick Chesson