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August 1, 2013

**VIA ELECTRONIC FILING**

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

*Re: Accessibility of User Interfaces, and Video Programming Guides and Menus,  
MB Docket No. 12-108*

Dear Ms. Dortch:

On July 30, 2013, Kathryn Zachem, Tom Wlodkowski, Ryan Wallach, Cathy Fox (via phone), Jerry Parkins (via phone), Stephen Walter, and the undersigned of Comcast Corporation (“Comcast”), and Jonathan Friedman, Daniel Alvarez, and Jessica Greffenius of Willkie Farr & Gallagher LLP, met with Adam Copeland, Maria Mullarkey, Mary Beth Murphy, Brendan Murray, Alison Neplokh, Jeffrey Neumann, and Raelynn Remy from the Media Bureau and Rosaline Crawford, Eliot Greenwald, and Jamal Mazrui of the Consumer and Governmental Affairs Bureau, regarding the above-captioned proceeding.

Mr. Wlodkowski provided a demonstration of Comcast’s next-generation, cloud-based video platform, including those features that Comcast is developing that will allow users who are blind or low vision to interact with our cable TV user interface more easily than ever before.<sup>1</sup> As Mr. Wlodkowski explained, this “talking guide” prototype will enable a voice feature that, among other things, can inform the user of which menu she is on (e.g., Main Menu, On Demand, Programming Guide, Search, Settings, etc.), what channel and program she is currently watching, what programming is on other channels or is coming up in the future, etc. Mr. Wlodkowski navigated the talking guide using Comcast’s XR2 remote, which includes programmable “soft keys” that will be configurable to enable quick access to a number of features, including accessibility features.<sup>2</sup>

Mr. Wlodkowski reiterated that there is no “one size fits all” approach to providing the kinds of accessibility features that Congress envisioned when it enacted the Accessibility Act, and that

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<sup>1</sup> See generally Comments of Comcast Corp., MB Docket No. 12-108, at 2-7 (July 15, 2013).

<sup>2</sup> See *id.* at 6.

providers should have the flexibility to adopt “multi-modal” accessibility solutions (e.g., using different technologies to deliver equivalent access – such as via the use of voice commands, physical buttons on a remote, or other technology to trigger set-top box functionality). Mr. Wlodkowski and I explained that a flexible approach would ensure that providers and device manufacturers can leverage new technologies to deliver innovative solutions, as Comcast has done in leveraging its cloud-based platform to develop the talking guide prototype. We stressed that flexibility is needed for the industry as a whole as service providers experiment with which solutions make the most sense in light of their particular circumstances, including their customer base, legacy systems, network architecture, and other factors.<sup>3</sup>

Mr. Wlodkowski also emphasized that the talking guide is still a work in progress, and that while much hard work has been put into development thus far, there is still much more to do. For example, he explained how Comcast is looking into making the talking guide more adaptable to a user’s level of experience – e.g., the verbosity (how much information is read aloud) and the speech rate could be customized – and that Comcast is researching how best to orient low vision users with the buttons on a remote.

In response to a question about the extent to which the talking guide is reliant on headend upgrades, Mr. Parkins explained that Comcast’s infrastructure either is updated already, or is in the process of being updated, to support the X1 platform. The cloud-based X1 platform is a prerequisite for the talking guide, and developing, testing, and deploying the X1 platform has been a multi-year project that has required significant resources. It has taken over a year of work for the talking guide to progress to this demo stage and further research and development will be needed to deploy these features. Mr. Wlodkowski also provided additional detail on how the X1 platform generally, and the talking guide specifically, leverage the power of the cloud to deliver functionality to the customer.

Mr. Wlodkowski also mentioned Comcast’s Xfinity Connect mobile app, in response to a staff question, as an example of Comcast’s work to incorporate accessible solutions into apps for third-party devices. Additionally, Mr. Wlodkowski reiterated the point from Comcast’s comments that the use of APIs that iOS, Android, and other operating systems provide enable MVPDs to ensure that their apps running on a tablet or smartphone include accessibility features and provide the consumer with a consistent method of interaction across all of the apps on the device – regardless of whether the app is a game, an MVPD app, or a productivity app.<sup>4</sup> Mr. Wlodkowski emphasized that the Commission should avoid mandates that would require the development of self-voicing apps for every platform, which likely would result in a poor user experience and delay or prevent the deployment of apps on certain platforms.

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<sup>3</sup> For example, as Comcast explained in its comments, because of the constraints of legacy hardware, Comcast has focused on a cloud-based approach to accessibility, predicated on accessibility features being enabled in Comcast’s network. This allows for more rapid feature upgrades and enables individual users to leverage the computing power of the cloud. *See id.* at 3.

<sup>4</sup> *See id.* at 3-4.

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Please direct any questions to the undersigned.

Respectfully submitted,

/s/ James R. Coltharp  
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cc: Adam Copeland  
Rosaline Crawford  
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