

Before the
Federal Communications Commission

In the Matter of

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**APPLICATIONS OF COMCAST CORPORATION, TIME WARNER CABLE INC.,
CHARTER COMMUNICATIONS, INC., AND SPINCO TO ASSIGN AND TRANSFER
CONTROL OF FCC LICENSES AND OTHER AUTHORIZATIONS**

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MB Docket No. 14-57

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Comments of Broadcom Corporation

August 18, 2014

Scott McGregor
President and Chief Executive Officer
Broadcom Corporation
5300 California Avenue
Irvine, California 92617

Federal Communication Commission
445 12th St., SW, Room TW-A325
Washington, DC 20554

RE: COMMENT OF BROADCOM CORPORATION ON APPLICATIONS OF COMCAST CORPORATION, TIME WARNER CABLE INC., CHARTER COMMUNICATIONS, INC., AND SPINCO TO ASSIGN AND TRANSFER CONTROL OF FCC LICENSES AND OTHER AUTHORIZATIONS (MB Docket No. 14-57)

On April 8, 2014, Comcast Corporation (“Comcast”) and Time Warner Cable Inc. (“TWC”) submitted joint applications to the Federal Communications Commission (“Commission”) seeking consent to transfer control of certain licenses and other authorizations pursuant to Sections 214 and 310(d) of the Communications Act of 1934, as amended (“Joint Applications”). As described in the Joint Applications, the proposed Comcast/TWC transaction, if completed, would transfer certain cable systems and assets of TWC and its affiliates to Comcast or its affiliates. Additionally, the proposed transaction contemplates the acquisition by Comcast of certain interests in licenses and other authorizations held by Bright House Networks, LLC and for the divestiture of certain cable systems totaling approximately 3.9 million video subscribers.

Broadcom Corporation is a California corporation with its global headquarters located in Irvine, California. Broadcom is a FORTUNE 500® company and we are known worldwide as a global leader and innovator in semiconductor solutions for wired and wireless communications. Broadcom products seamlessly deliver voice, video, data and multimedia connectivity in the home, office and mobile environments. With the industry's broadest portfolio of state-of-the-art system-on-a-chip solutions, or SoCs, Broadcom seeks to change the world by Connecting Everything®. We estimated that over 99.98% of global internet traffic passes through at least one Broadcom chip.

In the cable television industry, cable operators around the world are increasingly introducing new and enhanced technologies and services in set-top boxes, or STBs, including increased support for tablets and smart phones, digital video recording or DVR functionality, higher definition video, increased networking capabilities, and more tuners to enable faster channel change and more simultaneous recordings. Operators are also looking to deploy High Efficiency Video Coding, or HEVC, a video compression format that enables Ultra HD video services because it effectively doubles the capacity of existing networks to deploy new or existing content. Broadcom is a leader in bringing Ultra HD to the consumer and offers complete STB platform solutions that enable service providers to deploy a broad array of features and services. Our highly integrated SoCs are used to power the innovative, high-end interactive STBs that merge high-speed Internet access functionality with studio quality graphics, text and video, supporting a range of home communication and entertainment capabilities.

Being a technology leader requires an enormous investment in research and development. Historically, employees engaged in research and development have accounted for approximately

78% of our total workforce, including many with Ph.D.s. Broadcom's research and development expenses were \$2.49 billion in 2013. Broadcom technology is fundamental to many of the services and features enjoyed by cable television consumers today, including high definition video, integrated DVR functionality and wireless home gateways. Broadcom is also instrumental in developing and promoting critical cable television standards such as DOCSIS 1.0, 2.0 and 3.0, which increase the internet bandwidth available to consumers and provide a compelling alternative to landline voice services.

As a supplier of critical technology to the cable industry, we have a unique perspective on the importance of innovation to the provision of cable television services to consumers. In our experience, Comcast has proven itself to be a technology leader. It is clear that Comcast shares Broadcom's commitment to investing in innovation. Even though Comcast is not a direct customer of Broadcom, Broadcom and Comcast have collaborated on efforts to develop new technologies and quickly deploy them to the consumer marketplace.

For example, Broadcom and Comcast collaborated on the development of Comcast's Reference Design Kit or RDK. Comcast's RDK is an integrated software package providing a common platform for managing cable television equipment located at the consumers' homes, including set-top boxes, DVRs and home gateways. RDK software is provided free of charge in a shared source manner, and a community of developers provide code modifications and enhancements. Use of the RDK platform benefits all cable operators, particularly the smaller and regional operators, by lowering the costs of software development, reducing development cycles and facilitating the standardization and adoption of innovative new technologies. Comcast's RDK project has been a huge success for the cable television industry. The RDK ecosystem is supported by over 140 licensees at every stage of the supply chain, from integrated circuit makers like Broadcom, to equipment manufacturers, software developers, system integrators and cable operators.

Broadcom also collaborated with Comcast in the development of Comcast's revolutionary cloud-based X1 platform. The X1 platform is built on OpenStack, an open source cloud operating system developed in part by NASA and it is a true game changer. X1 leverages the power of cloud computing to transform the traditional set-top-box into an interactive experience that includes social media, interactive applications and second-screen content. For example, rather than merely delivering movies through a traditional set top box, the X1 platform enabled Comcast to rapidly integrate the Rotten Tomatoes database of movie reviews and provide that data to consumers to help inform viewing decisions.

Broadcom understands the importance of scale to investment in new communications technologies. We believe that the proposed Comcast/TWC transaction will give Comcast the scale required to build on its industry leading technology initiatives and to invest in further innovation in video and broadband services. This investment will benefit consumers by accelerating the deployment of all-digital cable systems that offer higher broadband speeds, more advanced services and a more robust and secure network. For example, if the transaction is consummated, we believe Comcast will accelerate the deployment of advanced services to consumers in the TWC service area and accelerate the migration of the TWC network to an upgraded all-digital or, eventually, state-of-the-art all-IP service. We are hopeful that Comcast

will also accelerate the rollout of DOCSIS 3.1 and other broadband innovations, of which Broadcom has been instrumental in the development.

Comcast has a track record of investing its resources to promote competition within the PayTV industry and drive innovation in broadband communications technologies. Comcast's investment in research and development results in a state-of-the-art experience for consumers and truly accelerates the pace of innovation for the entire cable television industry. Broadcom urges the Commission to approve the Joint Applications and supports the proposed transaction.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'S. McGregor'.

Scott McGregor
President and Chief Executive Officer
Broadcom Corporation

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