

BEFORE THE UNITED STATES INTERNATIONAL TRADE COMMISSION

In the Matter of:
Certain Semiconductor Devices,
Semiconductor Device Packages, and
Products Containing Same

Investigation No. 337-TA-1010
82 Fed. Reg. 32584

**COMMENTS OF PUBLIC KNOWLEDGE
AND THE OPEN TECHNOLOGY INSTITUTE AT NEW AMERICA**

Public Knowledge and the Open Technology Institute at New America respectfully submit the following comments in response to the Notice dated July 10, 2017. The Commission should find that the recommended remedial orders are not in the public interest per § 337(d)(1) because the devices under investigation are market-dominant tools required for Internet and other telecommunications access, and access to the Internet is of such grave importance today that it would be contrary to the public interest to exclude the devices necessary for such access.

I. Interest of Commenters

Public Knowledge is a non-profit organization that is dedicated to preserving the openness of the Internet and the public's access to knowledge, promoting creativity through balanced intellectual property rights, and upholding the rights of consumers to use innovative technology lawfully. The Open Technology Institute at New America (OTI) is a non-profit policy institute that promotes universal and affordable access to the Internet and other communications technologies that is both open and secure.

Public Knowledge and OTI have frequently commented on access to communications and mobile competition. They are currently intervenors in the ongoing FCC Open Internet (net neutrality) litigation. They also participate in antitrust investigations relating to telecommunications services, such as the now-failed merger between Comcast and Time Warner.

II. There Is a Strong Public Interest in Access to the Internet, Especially Among Rural and Low-Income Communities

The Commission seeks comment on “any public health, safety, or welfare concerns in the United States relating to the recommended remedial orders.” The orders would exclude certain chipsets used in cable modem devices, cable set-top boxes, and wireless mobile phones, as well as devices containing those chipsets.

There are grave concerns to public health, safety, and welfare in the United States because the devices to be excluded are critical to accessing the Internet, and access to the Internet is of unquestionable importance today. In comments in Investigation No. 337-TA-932 from 2015, Public Knowledge offered substantial evidence that Internet access was a “primary medium” for education, job-searching, health care, and even 911 emergency services.¹ Reduction of access to the Internet would diminish access to all these essential services—services that certainly provide for public health, safety, and welfare in the United States.

Evidence since those 2015 comments have only intensified the fundamental importance of Internet access. The 2016 presidential and congressional elections, and the ongoing use of Internet services such as Twitter by elected government officials, reveal how important Internet access is to the ability of the citizenry to understand and engage with American democratic systems.

Indeed, access to the Internet has importance of constitutional dimensions. In *Packingham v. North Carolina*, the Supreme Court struck down a state law banning certain individuals from accessing portions of the Internet. 137 S. Ct. 1730, 1738 (2017). The Court held that the law was “a prohibition unprecedented in the scope of First Amendment speech it burdens,” given that Internet services today are “perhaps the most powerful mechanisms available to a private citizen

¹Comments of Public Knowledge at 3, *In re Certain Consumer Elecs.*, Inv. No. 337-TA-932 (Nov. 13, 2015) [hereinafter PK ’932 Comments], available at <https://www.publicknowledge.org/documents/pk-comments-in-itc-337-ta-932>; see also Brief of Public Knowledge, the Electronic Frontier Foundation, and the Center for Democracy and Technology as *Amici Curiae* in Support of Neither Party at 8–17, *BMG Rights Mgmt. (US) LLC v. Cox Commc’ns, Inc.*, No. 16-1972 (4th Cir. Nov. 14, 2016) [hereinafter PK *BMG* Brief], available at <https://www.publicknowledge.org/documents/pk-eff-cdt-amicus-brief-in-bmg-v-cox>.

to make his or her voice heard.” 137 S. Ct. at 1737. Certainly it need not be argued here that the First Amendment prohibits an exclusion order on the tools for accessing the Internet;² it is sufficient that *Packingham* stands for the principle that access to the Internet is a matter of strong public interest, reaching to core values of this nation.

Internet access, or lack thereof, particularly touches low-income and rural communities who may especially depend on such access and yet have more limited availability of Internet service. As Public Knowledge’s comments in the ’932 investigation explained, a majority of Americans in these traditionally marginalized communities rely on wireless phones for Internet access, often having no option for broadband cable Internet access at all.³ And yet such communities may be the most affected by the loss of educational resources, job-seeking opportunities, and government benefits that come with lack of Internet access.⁴ An exclusion order that further hinders Internet access among these communities is thus of even greater concern to the public interest.

III. An Exclusion Order Against the Accused Devices Harms This Public Interest

The recommended remedial orders impair the strong public interest in Internet access because they constrain an already uncompetitive market in tools of consumer Internet access, raising the cost of access and potentially making such access unattainable for those in low-income communities.

The Broadcom chipsets at issue are those used in cable modems, cable set-top boxes, and wireless mobile phones. These are three key devices that enable American consumers to access the Internet and broadcast media today. Constrained access to those devices would constrain Americans’ access to the Internet and cable broadcasts, constraining the people’s ability to receive information and participate as citizens in an increasingly online world.

²*But cf.* *Intellectual Venture I LLC v. Symantec Corp.*, 838 F.3d 1307, 1323–24 (Fed. Cir. 2016) (noting First Amendment concerns where patents interfere with “a widely-used platform for political dialogue”).

³PK ’932 Comments, *supra* note 1, at 2.

⁴*See* PK BMG Brief, *supra* note 1, at 11–13 (citing examples).

The recommended remedial orders would significantly constrain that access because Broadcom is a dominant, if not the dominant, provider of chipsets for cable modems, set-top boxes, and mobile phones. Upon its 2015 merger with Avago Technologies, Broadcom was said to “dominate the market, commanding 40 percent of the wired communications IC market.”⁵ Broadcom reportedly held nearly 49% market share in the set-top box chip market in 2014.⁶ And with regard to mobile phones, Broadcom’s BCM43xx family of Wi-Fi chips, at least some of which are the subject of this investigation, are used in “the vast majority of iPhones” and “also used by most major Android smartphone makers including HTC, Google, LG and Samsung.”⁷

Furthermore, the markets for these consumer telecommunications access devices are far from competitive. In the cable modem chipset market, there are only two main competitors: Broadcom and Intel.⁸ The set-top box market is even less competitive: A 2014 study found that 99% of consumers rent their cable box from their provider;⁹ retail competitors to set-top box rentals (who use a system known as CableCARD) make up less than 1.2% of the market.¹⁰

⁵Press Release, *Avago Technologies Acquisition of Broadcom Creates New Semiconductor Powerhouse, IHS says* (May 29, 2015), <https://technology.ihs.com/532191/avago-technologies-acquisition-of-broadcom-creates-new-semiconductor-powerhouse-ihs-says>.

⁶See Press Release, *Broadcom Extends Market Share by 4% to nearly 49% in Set-top Box IC Market* (May 27, 2014), <https://www.abiresearch.com/press/broadcom-extends-market-share-by-4-to-nearly-49-in/>.

⁷Gordon Kelly, *Apple iOS 10.3.3 Has a Great Secret Feature*, FORBES (July 23, 2017), <https://www.forbes.com/sites/gordonkelly/2017/07/23/apple-ios-10-3-3-update-guide-features-broadpwn-iphone/#19f59b6b3b36>.

⁸See Mike Dano, *From Comcast to Arris: Winners and losers in the cable industry’s move to DOCSIS 3.1 and 1 Gbps speeds*, FIERCE CABLE (Sept. 9, 2015), <http://www.fiercecable.com/special-report/from-comcast-to-arris-winners-and-losers-cable-industry-s-move-to-docsis-3-1-and-1> (quoting analyst Jeff Heynen); see also *DOCSIS 3.0 and Gateway Devices Propel Cable Broadband CPE Market - IHS Technology*, IHS MARKET (Nov. 16, 2012), <https://technology.ihs.com/415843/docsis-30-and-gateway-devices-propel-cable-broadband-cpe-market>.

⁹Press Release, *Markey, Blumenthal Decry Lack of Choice, Competition in Pay-TV Video Box Marketplace* (July 30, 2015), <https://www.markey.senate.gov/news/press-releases/markey-blumenthal-decry-lack-of-choice-competition-in-pay-tv-video-box-marketplace>.

¹⁰Letter from Nat’l Cable & Telecomms. Ass’n to Marlene H. Dortch, Fed. Commc’ns Comm’n, *CS Docket No. 97-80 (Commercial Availability of Navigation Devices)* (July 31, 2015), available at <https://ecfsapi.fcc.gov/file/60001119614.pdf>.

Exclusion of these devices would be especially harmful to Americans' interests in accessing essential Internet services, for two further reasons. First, the increased costs resulting from less competition would most harm low-income and rural communities, who as noted above are perhaps the most in need of improved access to Internet service. Second, the fact that complainant Tessera is a non-practicing entity further enhances the damage to competition that an exclusion order may cause. While Tessera points to other semiconductor chips made by Micron and Cypress to meet the domestic industry requirement, those chips do not provide Internet access or other telecommunications functionality, and as such are no replacement for the Broadcom chips and related devices to be excluded.

Put simply, the recommended remedial orders in this case will potentially exclude the dominant products in an uncompetitive, limited market for devices essential to Americans' exercise of interests in access to the Internet and broadcast information—interests reaching constitutional levels of importance. The Commission must account for those effects to determine that the recommended orders would not be in the interest of public health, safety, or welfare.

Respectfully submitted,

/s/ Charles Duan

CHARLES DUAN

PUBLIC KNOWLEDGE

1818 N Street NW, Suite 410

Washington, DC 20036

*Counsel for Public Knowledge and the Open
Technology Institute at New America*

August 7, 2017