

# **Long Comment Regarding a Proposed Exemption Under 17 U.S.C. 1201**

## **For LG Electronics, U.S.A., Inc. Proposed Class: 20 – Smart TVs**

### **Item 1. Commenter Information**

This Comment is submitted on behalf of LG Electronics U.S.A., Inc. in response to petition submitter Software Freedom Conservancy (“Conservancy”), a not-for-profit organization that helps promote, improve, develop, and defend Free, Libre, and Open Source Software (“FLOSS”), software freely licensed to use or modify .

LG representatives are John Taylor and Matthew Durgin and may be contacted at LG Electronics U.S.A., Inc., 1000 Sylvan Avenue, Englewood Cliffs, NJ 07632, at telephone numbers: 202-719-3490 and 201-220-3421, respectively.

LG and/or its affiliate companies (collectively, “LG”) is a leading manufacturer and technology innovator in consumer electronics, particularly in developing, manufacturing and distributing Smart TVs.

### **Item 2. Proposed Class Addressed**

The proposed class addressed is Class 20: Jailbreaking – Smart TVs.

### **Item 3. Overview**

In its petition, Conservancy claims that circumvention of technological protection mechanisms (TPMs) on Smart TVs would enable consumers to exercise their “right to access, modify, and share” proprietary software, as well as allow users to make fair use of such software.<sup>1</sup> Conservancy also claims that TPMs limit a user’s access to such proprietary software.<sup>2</sup> However, the versatility of Smart TVs today undoubtedly enables consumers to exercise such fair use of their televisions.

LG’s Smart TVs are essentially designed to allow consumers to gain access to and share a vast amount of content. For example, Connect SDK is an open-source platform available on LG Smart TVs that allows users to connect and share applications on their television from other devices, such as smart phones, tablets, and laptops. Additionally, Enyo, an open-source JavaScript framework, provides users the ability to create and share their own applications. These features are only a few of many which provide users the ability to connect, share, modify, and personalize their Smart TVs to best accommodate the needs of Smart TV consumers.

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<sup>1</sup> See Long Comment Regarding a Proposed Exemption Under 17 U.S.C. 1201 *For Software Freedom Proposed Class: 20 – Smart TVs*, 2 (2015) available at [http://copyright.gov/1201/2015/comments-020615/InitialComments\\_LongForm\\_SFC\\_Class20.pdf](http://copyright.gov/1201/2015/comments-020615/InitialComments_LongForm_SFC_Class20.pdf)

<sup>2</sup> *Id.*

With respect to Conservancy's claim that TPMs limit a user's access to certain software, the use of TPMs are to fundamentally protect the consumer's software from security risks. For example, TPMs operate to block malware from infiltrating the television's systems and prevent unauthorized users from gaining unlawful access to another user's copyrighted works.

Granting the exemption sought by petitioner is not needed and would be harmful because:

- i. consumers would be exposed to harmful and unnecessary security risks;
- ii. LG already includes various means to enable consumers to use their televisions safely and as they wish;
- iii. the exemption would harm copyright holders;
- iv. granting the petition would render the television incapable of being restored to its original fully protected state; and
- v. the exemption would harm LG and its brand interests.

#### **Item 4. Technological Protection Measure(s) and Method(s) of Circumvention**

As a manufacturer of Smart TVs, one of LG's primary concerns in developing and manufacturing its products is to protect consumers' privacy interests. In order to do so, TPMs provide a crucial means to protect consumers' security and privacy. Circumvention of TPMs would compromise the overall platform security and increase the television's vulnerability to malware, potentially harming consumers' privacy, and exposing manufacturers of Smart TVs to liability. For example, circumvention of TPMs would disable the security installed in Smart TVs to prevent hackers and malware from gaining access to the user's television, and thereby gaining access to a user's content and personal information.

##### *Administrative Access Controls*

TPMs, such as Administrative Access Controls, operate to prevent users from gaining unlawful access to other user's personal devices, including televisions, laptops, and mobile devices. Circumvention of these TPMs would enable users to gain access to another user's device and obtain personal information that may be stored on the device. Additionally, unauthorized users would have the ability to copy the content of another user's device and thereby expose the manufacturer to copyright liability.<sup>3</sup> Lastly, once the TPMs of a television have been circumvented, the device cannot be restored to its fully protected state.

##### *Firmware Encryption*

Other TPMs, such as Firmware Encryption, operate to provide routine updates for users to enhance a television's software and improve its overall operation. Updates provide users continued access to the newest features available on home entertainment devices. In this way, and contrary to Conservancy's claim that users have limited access to proprietary software, these TPMs operate to ensure that users have a continued access to the newest software programs and applications.

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<sup>3</sup> See generally Vincent C. Hu, David F. Ferraiolo & D. Rick Kuhn, *Assessment of Access Control Systems*, NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (Sept. 2006) available at <http://csrc.nist.gov/publications/nistir/7316/NISTIR-7316.pdf>

## **Item 5. Asserted Noninfringing Use(s)**

Conservancy argues that jailbreaking Smart TVs allows users to gain access to software programs, such as FLOSS, which enable them to modify the behavior of their televisions in a number of useful, noninfringing ways.<sup>4</sup> However, any noninfringing use Conservancy claims to be available only through jailbreaking is already available on Smart TVs. For example, Conservancy claims that consumers would be able to modify subtitles and change the aspect ratio or resolution of the TV's display.<sup>5</sup> However, LG's Smart TV's already offer all of these applications on their televisions, and LG designs Smart TVs with the ability to accommodate people with disabilities. Additionally, Conservancy claims that jailbreaking will allow the user to receive an extended display of channel information. LG's Smart TVs offer a 'Live Menu' that provides such extensive information about any program on a given channel.

Conservancy also claims jailbreaking allows the user to expand the television's compatibility with peripheral hardware and enable the TV to interact with other wireless devices.<sup>6</sup> LG's Smart TVs not only have the ability to connect with external hardware, such as keyboards and mice, but also enable users to connect to their phones, desktops, and other internet-based devices and share programs, photos, and videos.

Conclusively, jailbreaking is unnecessary and would not expand a Smart TV owner's ability to enhance the operation or performance of its television through means not already provided. Rather, the exemption would essentially only provide users the ability to gain unlawful access to other privately owned devices and potentially copy another user's content. This would only increase the number of copyright infringement claims each year. In addition, this exemption would place Smart TVs at a higher risk of exposure to malware and other forms of harmful viruses, thereby placing consumers at great risk.

## **Item 6. Asserted Adverse Effects**

Conservancy argues that TPMs intend to take control away from copyright holders over the use of their works.<sup>7</sup> On the contrary, TPMs operate to protect the content of copyright holders as well as any other files or directories that may be stored on such electronic devices.<sup>8</sup> Circumvention would disable any security protections, placing copyrighted works at risk and the user's content and personal information at risk of exposure.

More significantly, once a television has been circumvented, the user would not be able to restore the device to its fully protected state. This would undoubtedly raise concerns among consumers that would adversely impact incentives for content owners to utilize Smart TVs as a platform for launching and providing access to films and television programs. Ultimately,

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<sup>4</sup> Long Comment *For Software Freedom*, at 4 -5.

<sup>5</sup> *Id.* at 5.

<sup>6</sup> *Id.*

<sup>7</sup> *Id.* at 6.

<sup>8</sup> Hu, Ferraiolo & Kuhn, *Assessment of Access Control Systems*, at 3.

consumers' incentives to purchase and use Smart TVs and other electronic devices are predicated on the availability of robust TPM protections that will keep their personal content secure.

## **Item 7. Statutory Factors**

Contrary to Conservancy's claim, the proposed exemption is not supported by each of the statutory elements set forth in 17 U.S.C. § 1201(a)(1)(C).

### (i) The availability for use of copyrighted works

In their petition, Conservancy claims that permitting circumvention would have no effect on the proprietary software installed on televisions.<sup>9</sup> However, as provided above, circumvention of TPMs would effectively compromise the overall platform security of Smart TVs. This would ultimately place the consumer's privacy in jeopardy and expose manufacturers of Smart TVs to liability.

Conservancy also claims that circumvention is necessary and increases availability of third-party applications.<sup>10</sup> LG's Smart TVs not only provides its users with extensive availability to third party applications, but also provides open-source programs which allow users to connect with other external devices and applications.

### (ii) The availability for use of works for nonprofit archival, preservation, and educational purposes

Conservancy argues that the purpose of having access to software programs, like FLOSS, is so that users can learn about the design and functions of operating systems, as well as the development of software programs.<sup>11</sup> However, it cannot be assumed that all users will be utilizing the capability to study the design and formation of copyrighted protected software merely for educational purposes. Rather, it cannot be ruled out that users will utilize these capabilities to copy and infringe on another's copyrighted protected property.

### (iii) The impact that the prohibition on the circumvention of technological measures applied to copyrighted works has on criticism, comment, news reporting, teaching, scholarship, or research

Conservancy claims that permitting circumvention would enable researchers to find and expose security and privacy issues in Smart TVs. However, LG endeavors to ensure its consumers are satisfied with the protection its products provides and offer support to consumers that advise LG representatives of any faults in LG products. LG provides a number of means for consumers to communicate their concerns or any defects that may exist in a television's system. For example, LG offers a Live Support system wherein consumers may engage in a live chat or telephone conference about any problems relating to their products. Additionally, LG requests its consumers to provide feedback of its products, in order to continue developing more secure

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<sup>9</sup> Long Comment *For Software Freedom*, at 7.

<sup>10</sup> *Id.*

<sup>11</sup> *Id.* at 8.

TPMs. Permitting this exemption would be counterproductive to the efforts undertaken by manufacturers of Smart TVs to provide products that meet satisfactory protection standards as demanded by their consumers.

- (iv) The effect of circumvention of technological measures on the market for or value of copyrighted works

LG works diligently to manufacture and deliver high-performing products to consumers, and they respond by having great confidence in the LG brand. Allowing this exemption would affect the value of the product and dilute the LG brand. For example, the LG brand is being used in an unauthorized manner by OpenLGTV, which is a website that LG has neither affiliation with nor has authorized to use its brand. However, many consumers that may come across OpenLGTV are likely to be unaware that OpenLGTV is not affiliated with their LG Smart TV before permanently altering their television.

Additionally, this exemption would restrict the ability of LG and other Smart TV manufacturers from developing Smart TV services with content owners and distributors, such as Amazon, Hulu, Netflix, and additional content distributors of all sizes since circumvention would expose their products to infringing users and unauthorized distribution.

- (v) Other facts that are appropriate for the Librarian's consideration in evaluation the proposed exemption

Conservancy claims unlocking this exemption would extend the lifespan of Smart TVs. However, the circumvention of TPMs would only make the television more vulnerable to malware and hackers and thereby effectively decrease the life span of the product. Once the TPMs have been circumvented, the user will not be able to restore the television to its initial protected state and will be susceptible to an unlimited amount of harmful obstructions. Ultimately, the consumer would be left with the only option to discard the television and purchase a new one.