

**Submission on behalf of Joint Creators and Copyright Owners  
Class 12: Computer Programs – Repair**



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**ITEM A. COMMENTER INFORMATION**

**The Motion Picture Association, Inc.** (“MPA”) is a trade association representing some of the world’s largest producers and distributors of motion pictures and other audiovisual entertainment for viewing in theaters, on prerecorded media, over broadcast TV, cable and satellite services, and on the internet. The MPA’s members are: Netflix Studios, LLC, Paramount Pictures Corporation, Sony Pictures Entertainment Inc., Universal City Studios LLC, Walt Disney Studios Motion Pictures, and Warner Bros. Entertainment Inc.

**The Alliance for Recorded Music** (“ARM”) is a nonprofit coalition comprising the many artists and record labels who together perform, create, and/or distribute nearly all of the sound recordings commercially released in the United States. Members include the American Association of Independent Music (“A2IM”), the Music Artists Coalition (“MAC”), the Recording Industry Association of America, Inc. (“RIAA”), hundreds of recording artists, the major record companies, and more than 600 independently owned U.S. music labels.

**The Entertainment Software Association** (“ESA”) is the United States trade association serving companies that publish computer and video games for video game consoles, handheld video game devices, personal computers, and the internet. It represents nearly all of the major video game publishers and major video game platform providers in the United States.

Represented By:  
J. Matthew Williams (mxw@msk.com)  
Sofia Castillo (szc@msk.com)  
MITCHELL SILBERBERG & KNUPP LLP  
1818 N Street, NW, 7th Floor  
Washington, D.C. 20036  
202-355-7904

**ITEM B. PROPOSED CLASS ADDRESSED**

Class 12: Computer Programs – Repair<sup>1</sup>

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<sup>1</sup> This class as described by the Notice of Proposed Rulemaking (“NPRM”) is referred to as “repair” but includes petitions that go far beyond requesting exemptions for purposes of repairing devices and machines.

## **ITEM C. OVERVIEW**

MPA, ARM and ESA (“Joint Creators and Copyright Owners”) did not oppose renewal of the existing exemptions applicable to circumvention for purposes of repairing motorized land vehicles, smartphones, home appliances, or home systems. Petitioners now seek several separate, yet overlapping, exemptions for circumventing access controls that protect computer programs and other content for the purpose of repairing, maintaining, diagnosing and modifying – including apparently by “jailbreaking” – devices and machines. The Copyright Office and the Library of Congress have denied similar requests in past cycles based on substantially the same information and evidence contained in the comments. These opposition comments will focus on the petitions/comments submitted by Public Knowledge and iFixit, Electronic Frontier Foundation (“EFF”), and iFixit and Repair Association.<sup>2</sup>

## **ITEM D. TECHNOLOGICAL PROTECTION MEASURE(S) AND METHOD(S) OF CIRCUMVENTION**

EFF and iFixit/Repair Association seek abstract exemptions covering circumvention of *all* access controls protecting software in *all* devices and machines. The petition of Public Knowledge/iFixit focuses on video game consoles and access controls that were considered in several prior proceedings. In prior cycles, the Copyright Office has concluded that those access controls serve a critical anti-piracy purpose that is inevitably undermined by circumvention for the purpose of repair *or* modification. These access controls also benefit consumers by ensuring the security, functionality and privacy protections built into consoles.

## **ITEM E. ASSERTED ADVERSE EFFECTS ON NONINFRINGING USES**

### **1. Public Knowledge and iFixit Petition**

The video game industry represents an example of how technology can successfully enable access to thousands of creative and highly desirable works that delight and entertain more than 214 million video game players across the United States. Three quarters of all U.S. households have at least one person who plays video games, and 64 percent of U.S. adults and 70 percent of those under 18 regularly play video games.<sup>3</sup> The U.S. video game industry in 2019 generated \$90.3 billion in annual economic output and supported nearly 429,000 U.S. jobs. The latter number includes about 143,000 people directly employed by the video game industry, averaging over \$121,000 in annual compensation. Additionally, video game industry-related activity generates \$12.6 billion in federal, state and local taxes, annually.<sup>4</sup> This success is a direct result

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<sup>2</sup> With regard to specific issues raised by the petitions/comments of Summit Imaging, Transtate and Auto Care Association, we take no position, other than to note that limitations against violating other laws and accessing copyrighted content should be maintained and the Copyright Office must adhere to statutory limitations on the scope of its authority with respect to impacting the Section 1201 anti-trafficking prohibitions. As to vehicles, and the philosophical statement of Auto Care Association, the limitations against accessing subscription services and other copyrighted works should be maintained.

<sup>3</sup> ENTERTAINMENT SOFTWARE ASSOCIATION, [2020 ESSENTIAL FACTS ABOUT THE VIDEO GAME INDUSTRY](#) 3 (2020).

<sup>4</sup> ENTERTAINMENT SOFTWARE ASSOCIATION, [VIDEO GAMES IN THE 21ST CENTURY: THE 2020 ECONOMIC IMPACT REPORT](#) 1 (2020).

of having functional and safe platforms for consumers to use to play video games in secure environments.

Today's video game devices offer consumers high-end, state of the art entertainment with the ability to connect to other players through high-speed broadband networks. And, the games played on these devices have unprecedented quality, with top-of-the-line sound and graphics, and often cost as much as blockbuster movies to develop and produce.<sup>5</sup> Video game console manufacturers must not only protect their own products, but must also protect the games played on those devices, which are created by both large and small video game publishers. Copyrighted content from other industries, including motion pictures and sound recordings, may also be accessed on such consoles. For these reasons, the major manufacturers of video game consoles include technological protections to safeguard their platforms from copyright violations as well as security and privacy threats.

This need for protection is not theoretical. Criminal targeting of consoles is far too common, and ESA and its members must constantly combat circumvention efforts.<sup>6</sup> After console makers experience the harm caused by sales and use of circumvention devices to hack consoles to play and distribute pirated games (typically downloaded illegally from the internet), a technical update may be released with updated hardware to prevent the console from being hacked again. While software updates prevent circumvention devices from working up to a point, hackers often then turn to creating new versions of unauthorized software or circumvention devices, some of which are hardware chips or "mod chips" that require a user to break open the console to install them inside, risking significant damage and potentially rendering the console unusable. Some of these mod chip installers offer free games as part of the installation. Other circumvention devices are effectively plug-and-play. Recently, for example, "[t]hree members of an international criminal organization known as Team Xecuter were indicted on charges related to the development and sale of 'illegal devices that hacked popular video game consoles so they could be used to play unauthorized, or pirated, copies of video games,' according to a federal indictment filed in Seattle."<sup>7</sup>

To prevent compromising the integrity of consoles and the sophisticated electronics that comprise them and distinguish them from other devices, and to ensure that players have access to safe and enjoyable game experiences, console makers are committed to supporting and servicing their consumers. In fact, the major video game console makers—Microsoft, Nintendo, and Sony—provide easy, reliable, and affordable repair services. All three offer their own, unique, free, under-warranty repairs and affordable post-warranty repair options to ensure that their

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<sup>5</sup> Published estimates suggest video game production costs have increased between 200 and 300 percent in the last 15 years alone. See Christopher Dring, [IDG: Other publishers are considering raising game prices for PS5 and Xbox Series X](#), GAMES INDUSTRY (Jul. 2, 2020).

<sup>6</sup> In order to mitigate the dissemination of circumvention devices and modified consoles, the video game industry regularly requests that online marketplaces remove these listings for sale from their platforms. In 2020, ESA had over 4,500 listings removed from various online marketplaces.

<sup>7</sup> Brooke Wolford, [International hackers accused of pirating Xbox, Nintendo, PlayStation games, feds say](#), THE NEWS TRIBUNE (Oct. 2, 2020).

consoles remain in good working order.<sup>8</sup> They also provide comprehensive online and offline support networks that help consumers to remotely troubleshoot issues that limit the need to send in devices for repairs.<sup>9</sup>

As the Copyright Office concluded in 2012:

Console access controls protect not only the integrity of the console code, but the copyrighted works that run on the consoles. In so doing, they provide important incentives to create video games and other content for consoles, and thus play a critical role in the development and dissemination of highly innovative copyrighted works.<sup>10</sup>

In 2018, and in cycles prior to that, ESA and the Joint Creators and Copyright Owners responded to petitions and comments seeking, *inter alia*, the same repair exemption proposed in this proceeding. The Copyright Office recommended against granting the exemption.<sup>11</sup> The Library of Congress agreed. No exemption has been granted in three cycles.<sup>12</sup>

There is no reason to deviate from these well-considered earlier decisions. It is undisputed that three major console makers continue to offer repair services for new consoles and a range of older consoles, and/or do not use access controls on hardware, and provide “robust” options for authorized repairs.<sup>13</sup> Petitioner iFixit’s website also compliments console manufacturers on the

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<sup>8</sup> See [Playstation Hardware & Repairs](#) (last visited Feb. 7, 2021); [Setup a Repair for my Nintendo Product](#) (last visited Feb. 7, 2021); [Getting your Xbox Device Serviced](#) (last visited Feb. 7, 2021); see also, [PS4 warranties and PlayStation Warranty Services](#) (last visited Feb. 7, 2021); [Microsoft Standard Limited Warranty](#) (last visited Feb. 7, 2021); [Nintendo Warranty and Service Information](#) (last visited Feb. 7, 2021).

<sup>9</sup> ESA’s concern with the proposed exemption is *not* with displacing industry revenue from repair services, as repairs are not a source of revenue for the video game industry. Instead, ESA’s concern rests with permitting third parties, over which members have no control, from modifying the hardware and firmware in a way that could compromise the security features that are vital to providing a secure media environment for the playback of copyrighted games of various game publishers.

<sup>10</sup> [Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies](#), 77 Fed. Reg. 65260, 65274 (Oct. 26, 2012) (“2012 Final Rule”).

<sup>11</sup> See [SECTION 1201 RULEMAKING: SEVENTH TRIENNIAL PROCEEDING TO DETERMINE EXEMPTIONS TO THE PROHIBITION ON CIRCUMVENTION, RECOMMENDATION OF THE ACTING REGISTER OF COPYRIGHTS](#), 219-220 (2018) (“2018 Rec.”), [SECTION 1201 RULEMAKING: SIXTH TRIENNIAL PROCEEDING TO DETERMINE EXEMPTIONS TO THE PROHIBITION ON CIRCUMVENTION, RECOMMENDATION OF THE REGISTER OF COPYRIGHTS](#), 200 (2015) (“2015 Rec.”); [SECTION 1201 RULEMAKING: FIFTH TRIENNIAL PROCEEDING TO DETERMINE EXEMPTIONS TO THE PROHIBITION ON CIRCUMVENTION, RECOMMENDATION OF THE REGISTER OF COPYRIGHTS](#), 49 (2012) (“2012 Rec.”).

<sup>12</sup> See [Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies](#), 83 Fed. Reg. 54010, 54022 (Oct. 26, 2018) (“2018 Final Rule”); [Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies](#), 80 Fed. Reg. 65944, 65961 (Oct. 28, 2015) (“2015 Final Rule”); 2012 Final Rule at 65274.

<sup>13</sup> Public Knowledge and iFixit, [Class 12 Long Comment](#) at 4-5, FN 14 (Dec. 14, 2020) (“PK and iFixit 2020 Comment”). Microsoft’s current practice is to provide repair support for at least four years after cessation of manufacturing a console or longer if inventory is available. After ceasing to sell a product, Nintendo generally continues to perform repairs for a significant amount of time, and as long as it has available parts and the ability to do so. Nintendo generally continues to make such repairs by reserving some product specifically to use for parts.

extent of their repair services.<sup>14</sup> Moreover, the risks and threats associated with circumvention of console TPMs have not abated over time, and in fact continue to increase (as evidenced by the legal cases discussed *supra* brought both by DOJ and console makers). The Copyright Office should therefore look to the prior rulemaking outcomes and deny the requested exemption.<sup>15</sup> On this point, we ask the Copyright Office to consider making a rule in the proceeding whereby proposed exemptions that have been denied in the past will not be considered unless proponents present new evidence.

(i) Lawful Use Analysis

To the extent firmware must be reproduced or modified for repair, Section 117 of the Copyright Act does not make the use at issue lawful. The software that resides in video game consoles is *licensed* to consumers.<sup>16</sup> Moreover, for Section 117 to apply, repairs must restore consoles to normal functionality when completed.<sup>17</sup> As in prior proceedings, there is no evidence that is achievable where circumvention of access controls on firmware is required for repair.

In previous cycles, the Copyright Office concluded that console repairs that involve reproduction or modification of firmware are not fair use.<sup>18</sup> The purpose and design of the technological protection measures used to secure video game consoles has not changed since those previous

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Sony Interactive Entertainment has historically offered and continues to offer product repairs or replacement of PlayStation consoles for seven years after a particular model's last production date, and in some cases longer.

<sup>14</sup> The iFixit website says that the Xbox Series X and PlayStation 5 are “pretty accommodating if you need to make standard repairs.” Kevin Purdy, [Top 5 Most Repairable Devices We Tore Down in 2020](#), iFIXIT (Jan. 7, 2021) (last visited Jan. 26, 2021). The website goes on to say that “[t]he only real sticking point is discs and storage” and that “[n]either console will allow you to replace their optical drive without some tricky board-swapping and soldering, for piracy and cheating prevention reasons.” *Id.* (emphasis added). They conclude by saying that “for what most people will need to do over their console’s lifetime, these cutting-edge platforms score a 7 out of 10.” *Id.* As stated by the Copyright Office in 2018, “[p]roponents suggest there is a need to circumvent access controls to engage in console repair and ‘not to expand the functionality of the device.’ Specifically, they suggest that there is a need to repair the optical drive for the Xbox 360 and PlayStation 4, which implicates section 1201 because ‘the drive is cryptographically paired to the main board.’ But the 2015 rulemaking considered this exact issue, concluding that ‘there are other methods of replacing a malfunctioning optical drive that do not require circumvention.’” 2018 Rec. at 219. Petitioners have not established that this fact has changed.

<sup>15</sup> *See, e.g.*, 2018 Rec. at 220 (“At bottom, the record reflects similar facts to the 2015 rulemaking, which concluded that proponents had failed to demonstrate a showing of adverse effects, and so the Acting Register reaches the same conclusion here.”).

<sup>16</sup> *See, e.g.*, [NINTENDO SWITCH FAMILY: USER AGREEMENT](#) (last visited Feb 7, 2021) (“The Software is licensed, not sold, to you solely for your personal, noncommercial use on the Console.”); [PLAYSTATION SOFTWARE PRODUCT LICENSE AGREEMENT](#) (last visited Feb. 7, 2021) (“The Software is licensed to you, not sold.”); [XBOX SOFTWARE LICENSE AGREEMENT](#) (last visited Feb. 7, 2021) (“The Xbox Software is licensed to You, not sold.”).

<sup>17</sup> *See* 17 U.S.C. § 117(d)(2) (2020) (“[T]he ‘repair’ of a machine is the restoring of the machine to the state of working in accordance with its original specifications and any changes to those specifications authorized for that machine.”).

<sup>18</sup> 2018 Rec. at 205-206.

cycles.<sup>19</sup> Video game consoles use a variety of access controls, and all of them are designed to prevent bad actors from gaining unauthorized access or making unauthorized copies of the copyrighted video games and other entertainment content available on consoles, distributing those unauthorized copies to others, or using the consoles to access and play unauthorized copies of such works. In general, these TPMs include encryption of the firmware that controls access to the video game console and other software/firmware, as well as authentication checks that prevent the installation and execution of unauthorized software and also protect access to media content. These TPMs work together to create a secure media platform that benefits consumers. Once they are circumvented, however, the TPMs cannot serve any of their protective functions. Indeed, properly licensed content may not be playable after circumvention of the access controls.

While hardware repair that requires the reproduction or modification of copyrighted materials might be non-infringing in some circumstances, circumventing access controls on console firmware enables consoles to load and run infringing games and other content, regardless of the circumventor's stated purpose. Bypassing console TPMs for purposes of repair enables unauthorized access to and use of works distributed through consoles, including television programs, movies, and sound recordings. None of this conduct is transformative, and in light of available alternatives, allowing circumvention is also unnecessary. Given that the current prohibition on circumvention appropriately inhibits a substantial amount of infringing uses, and that the market for the firmware would deteriorate if it was compromised, the Copyright Office should recommend denial of the proposed exemption.

(ii) 1201 Factors Analysis

For the reasons below, none of the Section 1201(a) (1) (C) factors favors an exemption.

- **(i) Availability for use of copyrighted works:** Consoles currently increase the availability of copyrighted works, including video games. Unauthorized repair will undermine the security of consoles, thereby threatening the ecosystems that consumers currently enjoy.
- **(ii) Availability for use of works for nonprofit archival, preservation, and educational purposes:** As presented, repair of consoles is not in furtherance of archiving, preserving, or educating people about video games. Moreover, independent repair is frequently a commercial enterprise that involves charging fees for services.
- **(iii) Impact on criticism, comment, news reporting, teaching, scholarship, or research:** Repairing consoles is not about commenting on the content of video games. The only “research” presented relates to how to repair consoles, not any broader topic.
- **(iv) Effect of circumvention of technological measures on the market for or value of copyrighted works:** As the Copyright Office stated in 2018, “[t]his rulemaking reflects similar console-specific concerns about potential market harm. Proponents have not

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<sup>19</sup> The Copyright Office has concluded that “console access controls encourage the development and dissemination of highly creative copyrighted works by facilitating secure platforms for the development and distribution of video games and other applications.” 2012 Rec. at 48.

provided a persuasive legal or factual analysis why the [] Register should reach a different conclusion than in 2012 or 2015, and so she does not.”<sup>20</sup> The same is true again today.

- **(v) Other factors, such as environmental impact:** Unlike devices that may have short life cycles, video game consoles are played for years and often kept for younger generations. And, this long lifecycle is more likely to continue if repairs are performed by the manufacturers. Older model consoles are still highly popular and always available on online marketplaces, such as eBay. Moreover, Microsoft, Nintendo, and Sony as well as the video game retailer, GameStop, have robust recycling programs for consumers who want to dispose of used consoles in an environmentally friendly way.

For all of these reasons, the Copyright Office should not recommend the adoption of an exemption for repairing video game consoles.

## 2. EFF Petition and iFixit/Repair Association Petition

Three years ago, the Copyright Office recommended against a broadly worded exemption. At that time, like now, EFF focused on specific digital cameras, “smart” litterboxes, printer cartridges, programmers/debuggers, camera gimbals, the Kindle Paperwhite eReader, a digital radio, and the Sony Aibo robotic dog.<sup>21</sup> The Copyright Office should recommend that the current proposals – which seek an exemption to circumvent an extremely broad category of access controls – be denied as they were three years ago.<sup>22</sup>

### (i) Lawful Use Analysis

The Copyright Office should follow the path walked in prior rulemaking cycles.<sup>23</sup> In the majority of instances, modification of software in devices is likely infringing and does not involve a right under Section 117; instead, the modification language proposed allows for the creation of derivative works of software/firmware resident in every device or machine. Older cases involving intermediate copying to create entirely new works of authorship are inapposite: the interoperable products in those cases did not modify or reproduce the underlying code that was reverse engineered.<sup>24</sup>

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<sup>20</sup> 2018 Rec. at 206.

<sup>21</sup> This cycle, EFF is providing these very same examples. EFF, [Class 12 Long Comment](#) at 3-12 (Dec. 14, 2020) (“EFF 2020 Comment”).

<sup>22</sup> iFixit/Repair Association do not discuss individual examples. iFixit and Repair Association, [Class 12 Long Comment](#) at 2 (Dec. 14, 2020) (“iFixit/Repair Association 2020 Comment”).

<sup>23</sup> See 2018 Rec. at 211 (“[F]ollowing two policy studies where the Copyright Office concluded respectively that section 117 is fact-dependent and that there was no consensus regarding the meaning of lawful modification, the Acting Register declines to extrapolate from briefly sketched statements to conclude more definitively as to whether the class of modifications sought in this exemption are likely noninfringing.”); *id.* at 216 (criticizing “spotty record and sprawling nature” of proposed exemption).

<sup>24</sup> See generally *Sega Enters. Ltd. v. Accolade, Inc.*, 977 F.2d 1510 (9th Cir. 1992); *Sony Computer Entm’t Inc. v. Connectix Corp.*, 203 F.3d 596, 599, 609 (9th Cir. 2000); see also 2018 Rec. at 208 (“[I]t is not clear that the two cases cited by proponents go so far as to support the broader range of activities envisioned by the proposal [so] the

Divorcing an exemption from the actual devices at issue would invite unforeseen harm.<sup>25</sup> The “modification” proposals would apparently allow, for example, “jailbreaking” videogame consoles, which the Copyright Office has repeatedly denied in prior cycles.<sup>26</sup> There is no new evidence on this topic.<sup>27</sup> And as discussed above, circumventing access controls on consoles undermines the content protection and security schemes for video games and other valuable content accessible via the devices, just as it did three years ago (and in cycles prior to that).<sup>28</sup>

(ii) 1201(a)(1)(C) Factors Analysis

Because this proposal is abstract, granting any new exemption for modification would be contrary to the ground rules for this proceeding. The specific modifications of devices that Petitioners do discuss do not advance the availability of works; further any significant nonprofit goals; result in commentary concerning works; or avoid harming copyright owners’ markets for authorized derivative works. If the Copyright Office, nevertheless, recommends any exemption, it should be far narrower than proposed, focused on the factual record, and explicitly exclude video game consoles.

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Acting Register does not conclude that modification of a function of a device as a general category is likely to be noninfringing.”).

<sup>25</sup> See 2018 Rec. at 220 (“Proponents offer specific examples of modification of a few other devices, including a robotic dog, a camera gimbal, and handheld two-way radios. But as discussed above, as an overall matter, the Acting Register cannot conclude that ‘modification’ is likely to be noninfringing. Moreover, proponents fail to address whether the asserted adverse effects concerning these devices apply to the broader category of devices of which they are a part, or instead represent ‘individual cases,’ in which case they are outside the scope of the rulemaking. Thus, the Acting Register finds that the evidence relating to these devices is insufficient at this time to adequately identify and evaluate any asserted adverse effects on noninfringing uses.”).

<sup>26</sup> See 2015 Rec. at 200 (“In this rulemaking, proponents have failed to offer a legal or factual basis to support a different outcome here. Proponents have not provided any legal analysis, let alone an explanation of why the Register’s legal conclusions should be different now than in 2012. The sparse evidence proffered by proponents in this proceeding is not materially different from the evidence considered in 2012. At the same time, opponents have provided substantial evidence to support the conclusion that jailbreaking of video game consoles leads to infringing activity and that there continue to be readily available alternatives to circumvention for each of the activities proffered by proponents.”); 2012 Rec. at 49 (“[D]ue to the particular characteristics of the video game marketplace, the circumvention of access controls protecting a console computer program so that it can be copied and modified for the purpose of enabling unauthorized applications has the effect of decreasing the market for, and value of, that program, as it can no longer serve to facilitate a secure gaming platform. Further, by enabling the ability to obtain and play pirated games and other unauthorized content, the dismantling of console access controls undermines the value of legitimate copyrighted works in the marketplace, many of which require a substantial investment of creative and financial resources to create.”).

<sup>27</sup> See 2018 Rec. at 219 (“to recommend an exemption, there must be a record that shows distinct, verifiable, and measureable adverse effects, or that such effects are likely to occur.”).

<sup>28</sup> See *id.* at 205 (“Opponents have provided compelling, uncontradicted evidence that circumvention of access controls to permit interoperability of video game consoles—regardless of purpose—has the effect of diminishing the value of, and impairing the market for, the affected code, because the compromised code can no longer serve as a secure platform for the development and distribution of legitimate content.”).



**ITEM F: DOCUMENTARY EVIDENCE**

We have included hyperlinks to webpages/documents within the body of this document. We are not submitting any other documentary evidence.

Respectfully submitted:  
/s/ J. Matthew Williams  
J. Matthew Williams (mxw@msk.com)  
Sofia Castillo (szc@msk.com)  
MITCHELL SILBERBERG & KNUPP LLP  
1818 N Street, NW, 7th Floor  
Washington, D.C. 20036  
202-355-7904