Electronic Frontier Foundation

July 13, 2009

Mr. Robert Kasunic
Principal Legal Advisor
Office of the General Counsel
United States Copyright Office
101 Independence Avenue, S.E.
Washington, D.C. 20559-6000

Re: June 23, 2009 questions regarding Class 5A.

Dear Mr. Kasunic:

The Electronic Frontier Foundation (EFF) submits these responses to your supplemental questions, sent on June 23, 2009, regarding proposed exemption Class 5A.

1. Does "jailbreaking" violate a license agreement between Apple and the purchaser of an iPhone? If so, please explain what provision it violates and whether "jailbreaking" constitutes copyright infringement?

Jailbreaking an iPhone in order to run lawfully obtained software does not constitute copyright infringement. Nothing in the Apple iPhone Software License Agreement changes this conclusion.[1] As explained in our original submission, any reproductions made in the course of jailbreaking an iPhone are privileged by both Section 117 and the fair use doctrine.[2]

In light of issues raised by Apple during the testimony in Palo Alto, CA, two particular aspects of Section 117 deserve further attention. Section 117 of the Copyright Act authorizes the "owner of a copy of a computer program" to prepare "a new copy or adaptation…as an essential step in the utilization of the computer program in conjunction with a machine." In *Krause v. Titleserv*, moreover, the Second Circuit explained that

[1] If an iPhone owner's activities are privileged by Section 107 or 117, she has no need of a "license" from Apple in order to defeat a copyright infringement claim. *See Storage Tech. Corp. v. Custom Hardware Eng'ring & Consulting Inc.*, 421 F.3d 1307, 1316 (Fed. Cir. 2005) ("[U]ses that violate a license agreement constitute copyright infringement only when those uses would infringe in the absence of any license agreement at all.").

[2] Comments of Electronic Frontier Foundation, Dec. 2, 2008, at 8-10, http://www.copyright.gov/1201/2008/comments/lohmann-fred.pdf.

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Section 117's adaptation privilege extends to the "addition of features so that a program better serves the needs of the customer for which it was created."[3]

With respect to the application of Section 117 to jailbreaking, the Librarian will have to evaluate whether an iPhone owner is the "owner of a copy" of the Apple firmware[4] that is delivered with and operates the device. In addition, the Librarian will have to evaluate whether the process of jailbreaking the iPhone involves an "adaptation" that falls within the scope of Section 117.

Turning first to "ownership of a copy," at the time the proposed class was submitted in December 2008, the Apple iPhone Software License Agreement explicitly provided that the owner of an iPhone was also the "owner of a copy" of the software.[5] In an April 22, 2009, revision to the agreement, however, Apple removed this language (presumably in an effort to influence the outcome of this rulemaking).

This contractual change, however, does not alter the fact that iPhone owners are "owners of a copy" of the iPhone firmware for purposes of Section 117. The courts have made it clear that, for Section 117 purposes, whether a possessor is the "owner of a copy" turns on "whether the party exercises sufficient incidents of ownership over a copy of the program to be sensibly considered the owner of the copy for purposes of § 117."[6] iPhone purchasers satisfy this test because they purchase a single copy for a single price, they have the right to possess the copy for an unlimited time, they have the right to discard or destroy copies as they wish, and there are no substantial restrictions on transfer of the copy along with the hardware.[7]

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[3] *Krause v. Titleserv, Inc.*, 402 F.3d 119, 128 (2d Cir. 2005).

[4] By "firmware," we are referring to the Apple operating system and bootloader software necessary to operate the iPhone. Jailbreaking does not make any changes to, nor interfere with, Apple application software delivered with the iPhone (such as the Safari browser or Mail email application).

[5] Prior to its April 2009 revision, the iPhone Software License Agreement expressly acknowledged that while Apple retains ownership of the copyrights to the software that accompanies the iPhone, "[y]ou own the media on which the iPhone Software is recorded…."

[6] *Krause v. Titleserv*, 402 F.3d at 124.

[7] *See id.* at 123 ("[I]t seems anomalous for a user whose degree of ownership of copy is so complete that he may lawfully use it and keep it forever, or if so disposed, throw it in the trash, to be nonetheless unauthorized to fix it when it develops a bug, or to make an archival copy as backup security.")

Although the latest version of the Apple iPhone Software License Agreement purports to grant only a "license" to the iPhone owner, the label placed on a transaction is not determinative of whether the possessor is an "owner of a copy" for copyright purposes.[8] "Ownership of a copy should be determined based on the actual character, rather than the label, of the transaction by which the user obtained possession."[9] The following factors have been found to be important to the analysis:

a) Does the possessor of the copy purchase a single copy for a single price? iPhone customers purchase their iPhones, including embedded iPhone firmware, in exchange for a single, one-time payment. They may elect to accept updates (free or at an additional cost), but are not required to do so. As the court stated in *Softman v. Adobe*, "[i]f a transaction involves a single payment giving the buyer an unlimited period in which it has a right to possession, the transaction is a sale."[10]

b) Does purchase of that copy include the right to possess the copy for an unlimited time? iPhone customers may keep their copy of the software forever. "The pertinent issue is whether, as in a lease, the user may be required to return the copy to the vendor after the expiration of a particular period. If not, the transaction conveyed not only possession, but also transferred ownership of the copy."[11]

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[8] *See* Melville Nimmer & David Nimmer, 2 Nimmer on Copyright § 8.08[B][1][c] ("[W]hether the software vendor calls its subject contract a 'license' or 'bill of sale' is immaterial."); *Krause v. Titleserv*, 402 F.3d at 123-24 (holding that defendant was owner, where he could lawfully use the copy, keep it forever, or throw it in the trash, and was therefore entitled under § 117 to modify software where such modification was essential to use); *DSC Communications Corp. v. Pulse Communications, Inc.*, 170 F.3d 1354, 1360-61 (Fed. Cir. 1999) (finding that a purchaser can be licensed and still be an "owner" under § 117, determining ownership of software copies according to factors apart from mere formal title). *See also UMG Recordings, Inc. v. Augusto*, 558 F. Supp. 2d 1055, 1060 (C.D. Cal. 2008) (in a case applying 17 U.S.C. § 109, finding that "[t]he fact that the agreement labels itself a 'license'…does not control our analysis.") (quoting *Microsoft Corp. v. DAK Indus.*, 66 F.3d 1091, 1099 (9th Cir. 1995)); *Vernor v. Autodesk Inc.*, 555 F. Supp. 2d 1164, 1169 (W.D. Wash. 2008) (in a case applying 17 U.S.C. § 109, holding that "[t]he label placed on a transaction is not determinative."); *Softman Prods. Co. LLC v. Adobe Systems, Inc.*, 171 F. Supp. 2d 1075, 1086 (C.D. Cal. 2001) (same).

[9] *Softman v. Adobe*, 171 F. Supp. 2d at 1086.

[10] *Id.*; *DSC v. Pulse Comms.*, 170 F.3d at 1362 ("[T]he fact that…the possessor's rights were obtained through a single payment, is certainly relevant to whether the possessor is an owner").

[11] *Softman v. Adobe*, 171 F. Supp. 2d at 1086; *accord Krause v. Titleserv*, 402 F.3d at 124 (buyer's right to continue to possess the programs after the relationship was terminated

c) Does the user have the right to discard or destroy copies as he wishes? iPhone customers are free to dispose of their iPhones as they see fit. The right to disard a copy (as opposed to an obligation to return) is an important incident of ownership.[12]

d) Are there severe restrictions on resale or other use? The Apple iPhone Software License Agreement expressly permits iPhone owners to transfer their iPhones, with their copy of the firmware included, to a third party provided that they do not retain any copies and the transferee agrees to the abide by the agreement.[13] This right to transfer may be exercised without notice to Apple and Apple reserves no right to refuse a transfer. The license agreement does not otherwise restrict uses of the iPhone firmware beyond those already imposed by the exclusive rights of the copyright owner. This treatment suggests ownership, rather than a lease or similar relationship.[14]

In summary, where a buyer possesses a copy of the software, is free to use and discard that copy as she sees fit, may transfer it to third parties without notice to the copyright owner, and has no obligation to return it or continue to pay for it following the initial purchase, she enjoys "sufficient incidents of ownership" to come within the reach of Section 117.

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weighed in favor of treatment of transaction as sale); *DSC v. Pulse*, 170 F.3d at 1362 (perpetual right of possession was relevant to finding of ownership); *UMG v. Augusto*, 558 F. Supp. 2d at 1060 ("The right to perpetual possession is a critical incident of ownership."); *Vernor v. Autodesk*, 555 F. Supp. 2d at 1170 ("[T]he critical factor is whether the transferee kept the copy acquired from the copyright owner.").

[12] *Krause v. Titleserv*, 402 F.3d at 124; *UMG v. Augusto*, 558 F. Supp. 2d at 1061 ("There are no consequences for the recipient should she lose or destroy the [copy]….").

[13] Apple iPhone Software License Agreement, § 3, http://images.apple.com/legal/sla/docs/iphone.pdf, described as "Update Rev. 4/22/09."

[14] *See Softman v. Adobe*, 171 F. Supp. 2d at 1082, n.6 (finding that the possessor was an "owner of a copy" where license agreement permitted transfer on terms similar to the Apple iPhone Software License Agreement); *compare DSC v. Pulse*, 170 F.3d at 1361 (finding no ownership where license "severely limit[s]" the rights of the licensee, including the right to transfer); *MAI Systems Corp. v. Peak Computer, Inc.*, 991 F.2d 511, 517 n.3 (9th Cir. 1993) (user was not an owner of a copy where the license in question limited use of the software to a single computer, with only one back up copy permitted, "solely to fulfill internal information processing needs on the particular items of Equipment" for which the software was configured, and required the user to keep the software confidential); *Adobe Sys. Inc. v. One Stop Micro Inc.*, 84 F. Supp. 2d 1086, 1091 (N.D. Cal. 2000) (license restricted resale to qualified educational buyers within the country and expressly bound the reseller to the license).

As “owners of a copy,” iPhone owners are entitled under Section 117 to make “a new copy or adaptation” of the software. During the hearing in Palo Alto, CA, questions were raised regarding the scope of the “adaptation” privilege conveyed by Section 117. In light of these questions, we have done additional research that reveals that the modifications to the iPhone firmware necessary for jailbreaking are so trivial that they hardly qualify as adaptations at all. Certainly, the adaptations necessary for jailbreaking do not create a derivative work and, in fact, are far more modest than those approved by the Second Circuit in *Krause v. Titleserv*.

As discussed in EFF’s original submission, there are a variety of different techniques used to jailbreak iPhones. We have focused our investigations on the most popular jailbreaking tool, known as PwnageTool, in order to better understand the alterations that are made to the Apple firmware in order to jailbreak the phone. Based on our understanding, the following represents the entirety of the changes necessary in order to jailbreak the iPhone 3G:

1. File: <Firmware/all_flash/all_flash.n82ap.production/*LLB.n82ap.RELEASE.img3*>
File size: 73008 bytes. Change two byte instruction at offset 39762 from 0x4240 to 0x2000.

2. File: <Firmware/all_flash/all_flash.n82ap.production/*iBoot.n82ap.RELEASE.img3*>
File size: 172032 bytes (decrypted). Change two byte instruction at offset 110546 from 0x4240 to 0x2000.

3. File: <Firmware/all_flash/all_flash.n82ap.production/*DeviceTree.n82ap.img3*>
File size: 40356 bytes (decrypted). Redact offset 48 so that "secure-root-prefix" becomes "xxxxxx-root-prefix". Redact offset 13444 so that "function-disable_keys" becomes "xxxxxxxx-disable_keys". A total of 13 bytes changed.

4. File: <*kernelcache.release.s5l8900x*>
File size: 8040448 (decrypted). At offset 592624, change two byte instruction from 0xD433 to 0x2800.At offset 2116268, change byte from 00 to 01. At offset 4056392, change two byte 0x2800 instruction to 0x2000 instruction. At offset 4056404, change two byte 0x1E05 instruction to 0x2500. At offset 4165772, change instruction to 0x4000 to 0x4001. A total of 8 bytes changed.

5. In the configuration file </etc/fstab>, remove "ro" from the first line and "noexec, nosuid, nodev" from the second line.

6. In the configuration file </System/Library/Lockdown/Services.plist>, add an entry to enable the AFC service to allow transfers of files to the root file system.

In short, jailbreaking an iPhone requires the alteration of fewer than 50 bytes of code among more than 8 million bytes. The alterations are purely functional, not creative, and

made solely in order to allow the iPhone to be used with independently created software applications. These trivial changes, made by the iPhone owner in order to facilitate interoperability, do not create a derivative work.[15] They are also considerably more modest than the changes made to the software in *Krause v. Titleserv*, which the Second Circuit found to be within the scope of adaptations permitted under Section 117.[16] Just as in that case, the adaptations necessary for jailbreaking an iPhone are undertaken by the end-user for her own personal use, and are not distributed to any third party. Accordingly, Apple "enjoys no less opportunity after [an iPhone owner's] changes, than before, to use, market, or otherwise reap the fruits of the copyrighted programs [it] created."[17]

Turning to the question of whether jailbreaking breaches the Apple iPhone Software License Agreement, despite the fact that more than 400,000 U.S. iPhone owners have jailbroken their iPhones,[18] Apple has never brought a breach of contract action against any iPhone owner, and no court has ever held that jailbreaking constitutes a breach of any contractual obligation by a consumer.

Section 2(c) of the Apple iPhone Software License Agreement[19] provides that:

> You may not and agree not to, or enable others to, copy (except as expressly permitted by this License), decompile, reverse engineer, disassemble, attempt to derive the source code of, decrypt, modify, or create derivative works of the iPhone Software or any services provided by the iPhone Software, or any part thereof (except as and only to the extent any foregoing restriction is prohibited by applicable law or to the extent as may be permitted by licensing terms governing use of open-source components included with the iPhone Software). Any attempt

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[15] *See Lewis Galoob Toys, Inc. v. Nintendo of Am., Inc.,* 964 F.2d 965, 969 (9th Cir. 1992) (holding that a device allowing a player to alter features of a Nintendo game by changing a single data byte was not a derivative work because it is "useless by itself," and that "such innovations rarely will constitute infringing derivative works under the Copyright Act.").

[16] *Krause v. Titleserv*, 402 F.3d at 125 (describing four categories of modifications made by owner); *see also Weitzman v. Microcomputer*, 510 F. Supp. 2d at 1109 (owner of a copy is entitled to "add features…so long as the modifications do not disrupt [the copyright owner's] interests as the purported copyright proprietor in [the software].").

[17] *Krause v. Titleserv*, 402 F.3d at 129.

[18] *See* Responsive Comment of Jay Freeman, Feb. 2, 2009, http://www.copyright.gov/1201/2008/responses/jay-freeman-saurik-54.pdf (estimating that approximately 400,000 U.S. iPhone owners use his Cydia application).

[19] Available at <http://images.apple.com/legal/sla/docs/iphone.pdf>, described as "Update Rev. 4/22/09."

> to do so is a violation of the rights of Apple and its licensors of the iPhone Software.

Even assuming that an owner's jailbreaking of her own iPhone would violate this provision, there are a number of reasons to doubt whether the provision would be enforceable in light of a variety of state and federal law principles.

First, to the extent this term as applied to those who jailbreak their iPhones conflicts with the purposes of Section 107 or 117 of the Copyright Act, its enforcement may be barred by the federal constitutional doctrine of conflict pre-emption or by the copyright misuse doctrine.[20]

Second, state courts may also declare the term void as against public policy in light of the conflict between state contract law and federal copyright law principles, or on the basis of the detrimental impact on competition and consumer choice in the software applications market.[21]

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[20] *See, e.g., Vault Corp. v. Quaid Software Ltd.,* 847 F.2d 255 (5th Cir. 1988) (applying constitutional preemption principles in a copyright case to nullify state law); *ASCAP v. Pataki,* 930 F. Supp. 873, 878 (S.D.N.Y. 1996) (same); Mark A. Lemley, *Beyond Preemption: The Law and Policy of Intellectual Property Licensing*, 87 CAL. L. REV. 111, 151-158 (1999) (discussing application of copyright misuse principles to nullify software license terms). While one court has upheld contractual prohibitions on reverse engineering against conflict preemption and copyright misuse challenges, that ruling has been criticized by commentators. *Compare Davidson & Assocs., Inc. v. Internet Gateway,* 334 F. Supp. 2d 1164, 1182-1183 (E.D. Miss. 2004) (stating that copyright misuse is not a defense to a breach-of-contract claim); *aff'd Davidson & Assocs. v. Jung,* 422 F.3d 630 (8th Cir. 2005) *with* American Law Institute, PRINCIPLES OF THE LAW OF SOFTWARE CONTRACTS (2009), §1.09, at 68 ("Because misuse analyzes the same types of factors as a preemption inquiry generally, the Principles provide for preemption of a term that would constitute misuse if the proceeding were one for infringement.") (the final draft of the PRINCIPLES OF THE LAW OF SOFTWARE CONTRACTS was approved by the American Law Institute on May 19, 2009 and is available at http://www.ali.org/index.cfm?fuseaction=publications.ppage&node_id=121).

[21] *See* American Law Institute, PRINCIPLES OF THE LAW OF SOFTWARE CONTRACTS (2009), §1.10, at 71 ("When federal law is unclear (likely the bulk of the cases), state law may refuse to enforce a provision based on state public policy, including consideration of the intellectual property balance."); J. H. Reichman & Jonathan A. Franklin, *Privately Legislated Intellectual Property Rights: Reconciling Freedom of Contract with Public Good Uses of Information*, 147 U. PA. L. REV. 875, 926, 930 (1999) (public policy could apply when standard forms conflict with longstanding federal and state intellectual property policies, including the protection of the "public interest in education, science,

Third, to the extent Apple cannot show any actual damages flowing from the individual iPhone owner's jailbreaking, Apple may not be able to prevail on a breach claim.[22]

Fourth, Apple may be barred by the doctrines of waiver, equitable estoppel, and laches from enforcing this provision.[23] Apple's own submission in this proceeding suggests that it is well aware that many of its customers have jailbroken their iPhones and that Apple either knows (or could find out) the identities of those iPhone owners.[24] Rather than taking any steps to enforce Section 2(c) against such owners, Apple has chosen instead to acquiesce in the conduct, and therefore may have in particular cases forfeited its right to enforce its contractual terms nominally forbidding this conduct.

Fifth, not all iPhone owners assent to Apple's iPhone License Agreement, and hence may not be bound by its terms. For example, there is a robust secondary market in used iPhones. Those who purchase an iPhone secondhand plainly own that iPhone, as well as the firmware installed on it. If the owner had never separately agreed to the Apple iPhone Software License Agreement, she would not be bound by its terms.[25] Moreover, she

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research, technological innovation, freedom of speech, and the preservation of competition"); Lemley, *Beyond Preemption*, 87 CAL. L. REV. at 159-69 (discussing federal and state public policy grounds that might bar enforcement of software contract provisions).

[22] *See McKie v. Huntley*, 620 N.W.2d 599, 603 (S.D. 2000) ("An action for breach of contract requires proof of an enforceable promise, its breach, and damages."); *Smith v. NBC Universal*, 524 F. Supp. 2d 315, 327 (S.D.N.Y. 2007) ("Because damages are an element of the claim, if a plaintiff cannot demonstrate harm that resulted from a breach of contract, the plaintiff's claim fails as a matter of law.").

[23] *See, e.g., Recursion Software, Inc. v. Interactive Intelligence, Inc.*, 425 F. Supp. 2d 756, 769-71 (N.D. Tex. 2006) (rejecting summary judgment on waiver, estoppel, and laches based on software vendor's failure to take action after becoming aware of infringing use of software).

[24] Responsive Comment of Apple, Inc., Feb. 2, 2009, at 16 (discussing crash reports received from jailbroken iPhones and "Apple's support department get[ting] flooded with calls."), http://www.copyright.gov/1201/2008/responses/apple-inc-31.pdf.

[25] *See Vernor v. AutoDesk*, 555 F. Supp. 2d at 1175-76 (rejecting the notion that "downstream purchasers of software are bound by the terms of a license between the copyright holder and the first licensee"). The Apple iPhone Software License Agreement provides that an iPhone owner may transfer the software to a third party, so long as the recipient agrees to the terms of the agreement. If, however, an iPhone owner were to transfer the phone without satisfying this condition, Apple's recourse would be a breach of contract action against the seller. For the reasons discussed below, because the initial seller should be viewed as the "owner" of a copy of the software, the purchaser would

would be entitled under Section 117 to make such copies and adaptations as would be necessary to use the phone.[26]

Fortunately, the Librarian need not resolve these difficult contract law questions as part of this rulemaking. Granting the proposed exemption to Section 1201(a)(1) would not impair Apple's contract rights in any way; Apple would remain free to bring breach actions to test whether Section 2(c) of its Apple iPhone Software License Agreement has been breached and is enforceable.

This rulemaking focuses instead on the question of whether technical measures otherwise protected under Section 1201(a)(1) are impeding the noninfringing activities of iPhone owners. The Librarian's established practice in this rulemaking underscores that contractual questions are not relevant to the Librarian's statutory task. In each of the previous rulemakings, the Librarian granted exemptions to permit circumvention of technical measures applied to software, each time without regard to any contractual prohibitions that might impede such activities. In fact, contractual prohibitions on modification, reverse engineering, and circumvention are common in connection with software, including in contexts where the Librarian has granted exemptions in the past.[27] This past practice suggests that the Librarian should not become mired in questions of contract law here, nor permit copyright owners to trump otherwise well-supported

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obtain good title from the seller. Accordingly, the purchaser would not be bound by the terms of the license and would be entitled to the full privileges of Section 117. *See id.*

[26] Any effort by Apple to make the prohibition against modification of the iPhone software run against third parties in the absence of contractual privity would run afoul of the established common law rule against equitable servitudes running with chattel. *See* Molly Shaffer Van Houweling, *The New Servitudes*, 96 Geo. L.J. 885 (2008); Zechariah Chafee, *The Music Goes Round and Round: Equitable Servitudes and Chattels*, 69 HARV. L. REV. 1250 (1956).

[27] For example, the Librarian granted an exemption in 2006 in favor of security researchers working on compact disc protection measures, notwithstanding the fact that the software license agreement that accompanied Sony's XCP "rootkit" included a broad prohibition on research activities. *See* "Sony's XCP Rootkit Music CDs are Bad Business," http://www.andybrain.com/archive/sony-drm-rootkit.htm#xcp. In 2006, the Librarian also granted an exemption in favor of e-book users, despite the fact that e-books are also frequently burdened with contractual obligations that nominally forbid circumvention. *See* Amazon Kindle: License Agreement and Terms of Use, http://www.amazon.com/gp/help/customer/display.html?nodeId=200144530. Also in 2006, the Librarian granted an exemption for unlocking mobile phones, notwithstanding the existence of contractual obligations that purport to bar unlocking. *See* Tracfone Terms and Conditions of Service, http://www.tracfone.com/.

exemptions in future proceedings by the simple expedient of making changes to "license agreements" affixed to their products.

2. Does the iPhone licensing agreement distinguish between the ownership of the "computer program" and the ownership of the particular copy of the program that exists on the iPhone?

Yes. The Apple iPhone Software License Agreement, in its April 2009 revision, provides that "Apple and its licensors retain ownership of the iPhone Software itself." The only sensible reading of this provision would refer to the *copyright* in the software delivered on the iPhone. If Apple had intended to refer to the copy of the software delivered with the iPhone, this would lead to the absurd result that while the purchaser owned the iPhone, Apple somehow reserves ownership over the memory chips contained within the iPhone where the iPhone firmware is stored (the iPhone as sold does not include separate media containing any software).

In any event, for the reasons discussed above, the owner of the iPhone is the "owner of a copy" of the iPhone firmware for purposes of Section 117.

3. Does any licensing agreement specifically place terms on "the copy" of the computer program, or do the license terms relate to the computer program generally?

The Apple iPhone Software License Agreement is not a model of clarity with respect to when it is referring to the intangible rights in the iPhone firmware, as opposed to when it is referring to the tangible rights to the physical copy of the iPhone firmware. In any event, as discussed above, the iPhone owner enjoys sufficient incidents of ownership over the copy of the software contained in the iPhone to be considered an owner for purposes of Section 117.

4. May the purchaser of an iPhone transfer ownership or dispose of the iPhone and all of the software originally included with the iPhone?

Yes. Section 3 of the Apple iPhone Software License Agreement provides that an iPhone owner can transfer ownership of the iPhone firmware to a third party in conjunction with the iPhone itself, so long as the transferor does not retain any copies and the recipient agrees to the terms of the agreement.[28]

5. In testimony, the Electronic Frontier Foundation stated that the iPhone warranty would not apply to an unauthorized modification on an iPhone. Would other services or

[28] Available at <http://images.apple.com/legal/sla/docs/iphone.pdf>, described as "Update Rev. 4/22/09."

functionality be affected by "jailbreaking" an iPhone, e.g., would AT&T phone, data, or GPS functionality be affected? Would AT&T be required to provide service to an iPhone modified by the user?

Jailbreaking, by itself, has no effect on AT&T's network or services. As explained in our technical white paper submitted on February 2, 2009, jailbreaking only involves the "host system," and has no effect on the "baseband system" that communicates with AT&T's phone, data, or GPS services.[29] Nor is there anything about jailbreaking an iPhone that necessarily results in any additional usage of AT&T's network services by the iPhone owner. For example, one popular application among those who jailbreak their iPhones is Cycorder, which allows iPhone owners to use the iPhones camera to take videos, in addition to still photographs (the standard software offered by Apple does not enable this feature on either the original iPhone or the iPhone 3G). The use of Cycorder to take videos using the iPhone's camera does not interact with AT&T's network or services.

Of course, an iPhone owner may install other applications that could adversely affect AT&T's network or services or may use an otherwise harmless application in such a manner as to harm AT&T's network. In such a case, AT&T's customer agreement provides that AT&T may terminate service on 30 days notice for any reason, and without notice if it has "reasonable cause to believe" the iPhone is being used "in a way that may adversely affect [AT&T's] service."[30]

Thank you for the opportunity to address your questions.

Sincerely,

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[29] Responsive Comments of the Electronic Frontier Foundation, Feb. 2, 2009, at 9-15, http://www.copyright.gov/1201/2008/responses/electronic-frontier-foundation-50.pdf.

[30] AT&T Wireless Service Agreement, Terms of Service, "Cancellation Period/Termination," linked to from http://www.wireless.att.com/learn/articles-resources/wireless-terms.jsp.