

*Before the*  
**Library of Congress  
Copyright Office  
Notice of Inquiry  
In re Exemption to Prohibition on  
Circumvention of Copyright  
Protection Systems for Access  
Control Technologies**

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**Introduction:** Good morning. My name is Jennifer Granick, and I represent the Wireless Alliance and Robert Pinkerton. The Wireless Alliance recycles and resells used, refurbished, and new cellular products. The Alliance works with industry, refurbishers, and the Environmental Protection Agency to reduce toxic waste and help bridge the digital divide. In the Alliance's experience, phones that are not locked to a specific carrier are much easier to recycle and resell.

Robert Pinkerton is an individual residing in Arlington, Virginia who traveled frequently in his former capacity as Director of Government Solutions for Siebel Systems. Mr. Pinkerton, along with thousands of other Americans, has found that having a locked mobile phone has greatly interfered with his ability to communicate while traveling. We are asking the Copyright Office to grant an exemption under § 1201(a)(1) to allow individuals to unlock their cell phones so that they may use them with carriers of their choice.

**Brief Summary of Argument:** As the litigation in *TracFone v. Sol Wireless*<sup>1</sup> illustrates, Section 1201(a) is an actual threat to consumers seeking to unlock their cell phones. Cell phone unlocking is an otherwise legal and non-infringing activity and consumers should be able to unlock their phones without fear of liability. Unlocking to use the phone on the network of your choice is non-infringing. There is no option for most customers other than unlocking. Unlocking does not enable infringement of the firmware on the phone. Nor does unlocking necessarily hobble content companies in imposing digital rights management on audio-visual content stored on the phone. The balance of harms – particularly competition and consumer choice, environmental considerations, and the digital divide – greatly weighs in favor of this exemption.

**This is a decision for the Copyright Office:** In opposition to this application for an exemption, the content industry argues that a court or regulatory agency would first have to outlaw carrier's anticompetitive locking practices, and only

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<sup>1</sup> *TracFone Wireless, Inc. v. Sol Wireless Group*, No. 05-232729, (S.D. Fla. Feb. 28, 2006). The Complaint is attached as Exhibit C, the Joint Stipulation for Entry of Final Judgment as Exhibit D, and the Final Judgment and Permanent Injunction as Exhibit E.

then would consumers have a right to self-help through unlocking. We need not prove that carrier locking is illegal to warrant an exemption for customer unlocking. Customer unlocking is legal, regardless of whether the carrier's practices are prohibited under antitrust law, agency regulations or state consumer protection statutes. The DMCA is the only reason consumers arguably can not engage in the otherwise legitimate activity of phone unlocking. Even if courts rule that carrier locking is unlawful, as they soon may<sup>2</sup>, the DMCA would still outlaw unlocking and we would still be here seeking an exemption. So the response that this is in the wrong forum is ridiculous. Only the DMCA prevents unlocking and only the Copyright Office can grant an exemption to the DMCA.

**Section 1201(A) Threatens Legitimate Unlocking:** Nearly all wireless communications providers use software locks to tie a customer's handset to their service network. There are several methods of locking. In general, locking prevents the customer from accessing copyrighted mobile firmware (bootloader and operating system), and running that firmware in conjunction with the wireless network of their choosing.

The lock is a technological protection measure that controls access to a copyrighted work, i.e. the mobile firmware. Therefore, circumventing that lock arguably violates section 1201(a). Under the rule of *Lexmark Int'l, Inc. v. Static Control Components*, 387 F.3d 522 (6<sup>th</sup> Cir. 2004), a defendant in an anti-circumvention case could argue that unlocking is not illegal. In *Lexmark*, the Sixth

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<sup>2</sup> There are pending state class action lawsuits against wireless carriers for locking practices. See, e.g., *In re CellPhone Termination Fee Cases*, J.C.C.P. 4332, Case No. RG04139536 (Alameda County Sup. Ct. filed June 24, 2005) attached as Exhibit F.

Circuit held that circumventing a secret handshake between a toner cartridge and a printer did not violate the DMCA because the handshake did not “effectively” control access to a copyrighted work. Rather, the purchase of the printer gave the owner access to the printer code. Similarly, purchasing a mobile phone may give the owner access to the firmware.

The Copyright Office should clarify that all mobile phone unlocking is legal under *Lexmark*, or in the alternative grant an exemption. Clarity from the Copyright Office, or an exemption, is required because, despite the rule of *Lexmark*, phone unlockers have been subject to suit and penalty under the DMCA.

Litigation between TracFone and Sol Wireless illustrates that section 1201(a) poses a real and actual threat to the non-infringing activity of cell phone unlocking. In *TracFone Wireless v. Sol Wireless Group, Inc.*,<sup>3</sup> a small company in Florida was sued for purchasing prepaid wireless handsets, unlocking them, and then reselling them for use on other wireless carriers’ networks. Count Five of the complaint alleged that Sol Wireless violated section 1201(a)(1) by unlocking the handsets. On February 28, 2006, the trial court issued a permanent injunction against Sol Wireless that prevents it and its affiliates from “engaging in the alteration or unlocking of any TracFone phones”<sup>4</sup>. This outcome illustrates that even after *Lexmark*, section 1201(a) poses an actual harm to phone unlocking. This also disposes of the content industry’s objection that this

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<sup>3</sup> *TracFone Wireless, Inc. v. Sol Wireless Group*, No. 05-232729, (S.D. Fla. Feb. 28, 2006).

<sup>4</sup> *Id.* at 4.

exemption is speculative.

**All The Relevant Statutory Factors Support Granting The Exemption:**

First, the vast majority of current and future mobile customers cannot unlock their phones without circumvention. Ninety-five percent of new subscribers have a choice of only four nationwide carriers, all of whom lock the handsets they sell.<sup>5</sup>

Second, allowing customers to change networks has no adverse affect on the market value of firmware. Customers buy firmware because it operates the handset, not as a commodity with independent value as a copyrighted work.

This is uncontested.

Finally, the balance of harms is in favor of unlocking. We have argued that unlocking helps customers far more than it hurts wireless carriers, and the public has resoundingly agreed. All the reply comments filed in response to this requested exemption, with the sole exception of the content industry's reply, support granting it. The thirteen comments tell personal stories of how locking deprives customers of the full value of their cell phones. For example, Michael Ditmore had to buy a new phone simply because two carriers consolidated. Jonathan Butler's phone and bluetooth accessories are now just "expensive paperweights". Everett Vinzant lost \$1200 because his carrier wouldn't unlock his

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<sup>5</sup> For example, a class action lawsuit filed initially in Los Angeles by the Foundation for Taxpayer and Consumer Rights against AT&T, T-Mobile and Cingular alleges that Cingular will not unlock customer phones unless their contract has expired. *See Foundation for Taxpayer and Consumer Rights v. AT&T*, Case No. BC 316619 (Los Angeles County Sup. Ct. June 7, 2004), attached as Exhibit G. The case was coordinated with pending cases in Alameda County and is now part of the *In re Cellphone Termination Fee Cases*. In the amended complaint filed in that matter, the class alleges that even after a contract has expired, wireless carriers refuse to unlock previous subscribers' handsets. *See Complaint at 3, In re CellPhone Termination Fee Cases* (Alameda County Sup. Ct. June 24, 2005) (No. J.C.C.P. 4332).

phone.

Unlocking allows customers to use the wireless products they have already purchased, and helps customers to choose among competing service providers. This is precisely the kind of competition that is consonant with U.S. telecommunications policy. Wireless providers may claim they need software locks because they subsidize the price of the handset and they want to make up the difference by ensuring that the customer uses the carrier's service. However, legally enforceable service contracts provide for a minimum monthly fee and a hefty early termination penalty. These contracts ensure that carriers receive every legitimate benefit of the subsidy they provide.

The environment benefits from unlocking because more handsets can be sold on a secondary market. That means less toxic chemicals end up in landfills, incinerators and ground water. As our written comments show, the proliferation of second-hand handsets will help address the digital divide problem, particularly in developing nations.

Most importantly, there is no evidence that phone unlocking threatens the rights of the content industry. Increasingly customers use handsets for accessing, storing, using (not to mention creating) copyrighted materials. The exemption we are requesting is *narrowly drawn*: We are asking for an exemption that would *only* allow an individual to circumvent a TPM (technological protection measure) that controls access to the software that connects the phone to a carrier's network. This exemption does not allow circumvention of TPMs that

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control access to audiovisual material on a handset.

Granting an exemption for circumventing a process that allows a consumer to access the mobile phone firmware (boot process and operating system) does not necessarily open the door to circumvention of a process that controls access to or copying of audio-visual works. The content industry's reply comments finesse this by say that a mobile devices' functions of accessing, receiving, playing back, storing and copying copyright materials **may be** controlled by the same programs that connect the user to the dial tone provided by a particular network. The content industry knows how it protects its works, but it provides no evidence that that protection is or must be controlled by the same firmware that operates the phone on the network of the customer's choosing.

Modern cell phones are built like ordinary personal computers. Cell phones generally have a processor, a bootloader that starts the operating system, an operating system, a set of applications, and data files. The way these layers interact in mobile phones differs, not just from carrier to carrier, but from model to model. Because phones have different chips, different operating systems, and different configurations, it is difficult to generalize.

Publicly available documents about mobile phone technology show that DRM and content playback happens at a different layer than locking. For example, the Open Mobile Alliance is a consortium of technology companies, including content providers, promoting an open digital rights management standard.<sup>7</sup> The OMA standard is used by a significant percentage of the mobile device market. The

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<sup>7</sup> <http://www.openmobilealliance.org/>, attached as Exhibit H.

OMA architecture places DRM functionality at a different layer than Service Provider functionality.<sup>8</sup> This proves that DRM is not necessarily entwined with “accessing a dial tone”. These are different functionalities.

Different mobile devices will deal with DRM and service provision functions differently. Even if some carriers may currently place DRM technology at the firmware layer, the OMA standard does not require this architecture for DRM to work. The content industry, in collaboration with the carriers and manufacturers, can simply choose to store the keys elsewhere, as is currently the case with many handsets on the market.

**CONCLUSION:** This application for an exemption should be granted. Members of the public have written to the Copyright Office asking that the right to unlock their phones be returned to them. Unlocking promotes competition, environmentalism and social equality. At the same time, there is no evidence that unlocking encourages or enables infringement. The Copyright Office should remove the only legal barrier to this non-infringing, socially beneficial conduct, by either indicating that unlocking is not illegal under *Lexmark* or by granting the exemption.

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<sup>8</sup> [http://www.lockstream.com/products\\_OMA\\_2.html](http://www.lockstream.com/products_OMA_2.html), attached as Exhibit I.

# **EXHIBIT A**

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**I. THE COMMENTING PARTIES**

The Wireless Alliance is a Colorado limited liability corporation that recycles and resells used, refurbished, and new cellular products. Each mobile unit contains toxic materials including lead, cadmium and beryllium. Mobile phones that are thrown away end up in landfills and these metals then leach into the water table. The Wireless Alliance helps the environment by repurposing used phones and recycling those that cannot be reused. The Wireless Alliance sells between 20-60,000 phones per month, including CDMA, TDMA, Analog, and GSM. By working with industry, refurbishers, the Environmental Protection Agency and charities, The Wireless Alliance both reduces toxic waste and helps bridge the digital divide between the United States and third world countries.

Robert Pinkerton is an individual residing in Arlington, Virginia. Pinkerton was the

Director of Government Solutions for Siebel Systems, Inc. until November 2005 and now works for Lexis Nexis. As Siebel's Director of Products Group for the Public Sector in 2002 and 2003, Pinkerton traveled over 100,000 miles per year for work. The position required him to travel regularly from the East Coast to California, Europe and Africa. During those trips, Pinkerton wanted to use his mobile phone to keep in contact with his company and his family, but the phone did not work in most of the locations Pinkerton visited. Renting a phone at the destination airport is expensive, time consuming, and requires Pinkerton to carry both his PDA and rental. Moreover, because recipients do not recognize the rental calling number, they rarely will answer his incoming calls. Because Pinkerton cannot unlock his phone and use it on European networks, he often travels without mobile phone service.

## II. INTRODUCTION

The commenters submit the following comments in connection with the Copyright Office's October 3, 2005 Notice of Inquiry.<sup>1</sup> The commenting parties propose exemptions from the Section 1201(a)(1)<sup>2</sup> prohibition on the circumvention of technological measures that control access to copyrighted works for the following class of works:

Computer programs that operate wireless telecommunications handsets. (Mobile firmware)

In October of 2005, a major mobile handset manufacturer sent a legal threat to a business that distributes phone unlocking software, claiming Digital Millennium Copyright Act violations. Phone unlocking software is a tool that can circumvent the software locks carriers use to stop customers from using the handsets they purchase on competing mobile networks. Though the threat did not identify a specific statute, counsel for commenters Pinkerton and The Wireless Alliance also advised the unlocking business, and believes that the manufacturer is claiming that provision of unlocking software, because it circumvents the software locks that control access to the mobile firmware, violates section 1201(b).<sup>3</sup> The cease and desist letter shows that handset manufacturers and carriers are imminently planning to use section 1201 to stop phone unlocking.

Using a mobile handset on a different network is clearly non-infringing activity. The customer is not copying the firmware, nor is he exercising any exclusive right the copyright owner has in the mobile firmware. Rather, the circumventor accesses the firmware merely to reprogram it to work on a different network, or to utilize a different SIM card. The customer merely wants the handset to run on the network of his choice.

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<sup>1</sup> See Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, 70 Fed.Reg. 57526 (2005).

<sup>2</sup> Unless otherwise noted, all section references are to the current Title 17 of the U.S. Code.

<sup>3</sup> See, Jennifer S. Granick, "Free the Cell Phone", Wired News, September 28, 2005, available at <http://www.wired.com/news/culture/0,1284,68989,00.html>

### III. PROPOSED EXEMPTION

#### A. Summary

Mobile communications providers are using software locks to control customer access to mobile phone operating software embedded inside the devices. These locks prevent customers from using their handsets on a competitor's network. Customers who want to use their handsets on a different network must circumvent the locking software to access the computer program that allows the phone to operate (mobile firmware). Mobile providers can use section 1201(a) to stop customers from selecting a provider of their choice, resulting in poorer service and higher costs for customers, reduced competition contrary to explicit U.S. policy, and environmental disaster as a result of mobile handset waste. Locked phones also contribute to the problem of the digital divide between rich and poorer nations.

#### B. Facts

##### 1. Scope of the Problem

###### a. Bundling Handsets with Service is a Common Practice, But is Contrary to Explicit U.S. Telecommunications Policy

In the United States, wireless communications carriers like Verizon or Sprint (carriers) use spectrum licensed to them by the Federal Communications Commission (FCC) to provide mobile phone service to customers. Mobile service uses different technological standards, and there are presently three main mobile networks in the United States, GSM, CDMA and TDMA. Customers access these networks with mobile phones, or handsets, compatible with one or more of these standards. CDMA phones do not necessarily work on GSM networks. However, a CDMA phone is capable of operating on any CDMA network.

In 1992, the FCC expressed its concern that carriers were bundling handset sales with service contracts. Specifically, the carriers were requiring customers to purchase their handsets directly from the carriers or authorize agents and to contract to pay for a minimum amount of wireless airtime per month over a period of a year or more. Based on these practices, the FCC stated its "concern that customers have the ability to choose their own CPE [handset] and service packages to meet their own communications needs and that they not be forced to buy unwanted carrier-provided CPE [handsets] in order to obtain necessary services." In the Matter of Bundling of Cellular Customer Premises Equipment and Cellular Service, CC Docket No. 91-34, 1992 WL 689944 (F.C.C. June 10, 1992), at para. 6 (hereinafter "1992 FCC Bundling Ruling"). But, because in 1992 there were low barriers to entry in the handset market, a wide selection of handsets from which customers could choose, no evidence that carriers were refusing service to customers that purchased other brands of handsets, and a geographically fragmented market, the FCC permitted carriers to continue to offer handsets and services as a

bundled package so long as service was not conditioned on purchasing the handset from the carrier. 1992 FCC Bundling Ruling, paras. 8, 15.

Despite this ruling almost every carrier today forces customers to purchase handsets directly from the carrier or its approved agents in order to get mobile service. Additionally, once the customer enters into a service agreement, the carriers use a variety of techniques to prevent customers from switching to competitor carriers, whether before or after the term of the service contract has passed.

Until recently, one effective anti-competitive practice was that carriers refused to allow customers to transfer their mobile phone numbers when they switched providers. Customers who wanted to keep their familiar phone numbers were stuck with their carrier, regardless of service quality, price, or terms of provision. With the Telecommunications Act of 1996, however, Congress mandated that carriers offer number portability in accordance with regulations to be promulgated by the FCC. 47 U.S.C. 251(b)(2). The purpose of this obligation, and others in the 1996 Act, is to “promote competition and reduce regulation . . . to secure lower prices and higher quality services for American telecommunications consumers and encourage the rapid deployment of new telecommunications technologies.” Telecommunications Act of 1996, HR 155, S 652, Beginning, *available at* <http://thomas.loc.gov/cgi-bin/query/F?c104:4:./temp/~c104W0zTCP:e0:>

Today, carriers’ anti-competitive practices continue to include the tying policy that forces customers to purchase handsets from the carrier or a designated agent, limits on the availability of handsets from other sources, restrictions on the ways in which dealers are permitted to market handsets, and locking the handset to prevent use with a competitor carrier.

Nearly all wireless communications providers use software locks to tie a customer’s handset to their service network. There are several types of locking software that work in different ways. In general, the software prevents the customer from accessing copyrighted mobile firmware, an act necessary to either instruct the phone to connect to a different carrier or to program the handset with the secret handshake a competing carrier provides to customers connecting with its network.

Customers who unlock their phones to use them on a different network are not infringing any copyright-protected interest of the carriers. Yet, if the Copyright Office does not grant an exemption, carriers may levy anti-circumvention claims against customers who unlock their phones and give legal force to a business practice that Congress and the FCC have explicitly stated they do not support.

#### **b. Locking Hurts Competition and Innovation**

Locked phones limit competition in the mobile communications market, contrary to explicit U.S. policy. As a result, customers get poorer service, higher prices and reduced innovation. Companies have reduced incentives to improve their networks, because