SOFTWARE FREEDOM LAW CENTER, INC.

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Free Software Foundation, Inc.

UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF NEW YORK

FREE SOFTWARE FOUNDATION, INC. a Massachusetts nonprofit corporation, Plaintiffs,	Civil Action No. CV
-against-	
CISCO SYSTEMS, INC. a California corporation,	
Defendant.	COMPLAINT

This is an action by The Free Software Foundation, Inc., a nonprofit corporation organized under the laws of the State of Massachusetts ("Plaintiff") by and through its attorneys, the Software Freedom Law Center, Inc., to recover damages arising from infringement of its copyrights by Cisco Systems, Inc. ("Defendant") and to enjoin Defendant's future infringement. Specifically, Defendant distributed and continues to distribute Plaintiff's copyrighted software without Plaintiff's permission and despite the fact that Plaintiff notified Defendant of its unlawful activity. Since Defendant has infringed Plaintiff's copyrights, and since that infringement is ongoing, Plaintiff seeks

damages and injunctive relief.

THE PARTIES

- 1. The Free Software Foundation ("Plaintiff") is a Massachusetts not-for-profit 501(c)(3) tax-exempt public charity with its headquarters at 51 Franklin Street, 5th Floor, Boston, MA 02110. Plaintiff's nonprofit mission is to "promote computer user freedom and to defend the rights of all free software users." In furtherance of this mission, plaintiff develops, markets, distributes and licenses computer software.
- 2. Upon information and belief, Cisco Systems, Inc. ("Defendant") is a California corporation with its principle place of business at 170 West Tasman Drive, San Jose, CA 95134. Upon information and belief, Defendant is engaged in the business of manufacturing, advertising, marketing and distributing computer hardware and software. Upon information and belief, Defendant maintains offices and regularly transacts substantial business in this district, and also contracts with third party distributors to supply goods and services within this district.

JURISDICTION AND VENUE

- 3. This Court has subject matter jurisdiction over Plaintiffs' claims for copyright infringement pursuant to 17 U.S.C. § 501 and 28 U.S.C. §§ 1331 and 1338(a).
- 4. This Court has personal jurisdiction over Defendant pursuant to Rule 4(K)(1)(a) of the Federal Rules of Civil Procedure and §§ 301 and 302 of the New York Civil Practice Law and Rules because, upon information and belief, Defendant has conducted and continues to conduct substantial business in the State of New York. Upon information and belief, defendant also contracts to supply goods and services and maintains offices within this district.
 - 5. Venue in this district is proper under 28 U.S.C. §§ 1391 and 1400 because a substantial

part of the events giving rise to the claims asserted herein arise in this district, and Defendant, upon information and belief, is and at all times was doing business in this district.

FACTUAL BACKGROUND

- 6. Plaintiff holds copyright in several computer programs, including the GNU C Library, GNU Coreutils, GNU Readline, GNU Parted, GNU Wget, GNU Compiler Collection, GNU Binutils, and GNU Debugger ("the Programs").
- 7. The GNU C Library ("GLibC") defines the system calls and other basic facilities that are essential to any UNIX-like operating system. The library is designed to be compliant with the standards of a broad range of systems and contains nearly all known and useful functions from every C library available. It supports the ISO C and POSIX standards and many features of popular UNIX variants.
- 8. GNU Coreutils ("Coreutils") contains the basic file, shell (user command environment) and text manipulation utilities which are fundamental to Unix-like operating systems.
- 9. GNU Readline ("Readline") provides a set of functions to enable users to edit command lines interactively via multiple editing modes. It includes additional functions to maintain a list of previously-entered command lines, to recall those lines for reuse, and perform predictive expansion of partial commands based on a stored history of a user's commands.
- 10. GNU Parted ("Parted") is a software package for creating, destroying, resizing, checking and copying hard disk drive partitions and the file systems contained on them. It is useful for creating space for new operating systems, reorganizing disk usage, copying data between locations on hard disks, and the creation of "images" containing the entire contents of a drive.
- 11. GNU Wget ("WGet") is a package for retrieving files using HTTP, HTTPS and FTP, the most widely-used Internet protocols. It is a non-interactive command-line tool which can be run

by users from the command line and also by other programs, periodically run system processes, and remote terminals. It includes many features to facilitate the retrieval of large files or the contents of entire web or FTP sites.

- 12. GNU Compiler Collection ("GCC") is a set of computer programs for compiling humanreadable source code into machine-readable object code. It is capable of compiling code written in many different programming languages and producing object code for dozens of hardware architectures.
- 13. GNU Binutils ("Binutils") is a collection of utilities for working with object files. One important such utility is "ld," a linker utility capable of combining object files generated by a compiler into executable files which can be run by a computer.
- 14. GNU Debugger ("GDB") allows programmers to monitor and alter the internal functioning of a program while it runs and to locate errors within a program so that they can be more easily fixed. GDB can be used to analyze programs written in many different programming languages, whether they are running on the same computer as GDB or on a remote computer.
- 15. GLibC, Coreutils, and Readline are essential elements of the GNU/Linux operating system and are installed and used pervasively worldwide on personal and business computers and specialized computing appliances. Upon information and belief, GNU/Linux is distributed on a wide range of products sold by commercial vendors including IBM, Hewlett-Packard, Nokia, and Dell.
- 16. Parted is used on nearly every full-sized GNU/Linux computer and Wget is widely used on networked GNU/Linux computers and computing devices. Both are distributed extensively, commercially and noncommercially.
- 17. GCC, GDB, and Binutils are commonly used in conjunction with one another to build complete programs from source code and debug them. They are used to build a large proportion of

the software available for GNU/Linux, BSD, Sun Solaris, Mac OSX, and other Unix-like operating systems. In particular, they are used to build the core or "kernel" of these systems, to the exclusion of almost all other such tools. They are also widely used to build programs for use with Microsoft Windows and other non-Unix operating systems.

- 18. Plaintiff holds registered copyrights in GLibC (Registrations #TX 5-873-252 and TX 6-509-281), Coreutils (TX 6-073-883), Wget (TX 6-099-872), GCC (TX 2-084-819, TX 5-948-615, TX 6-030-547, TX 6-191-571, TX 6-268-075, TX 6-537-950, TX 6-538-142), Binutils (TX 5-789-407), and GDB (TX 1-926-144, TX 6-084-476).
- 19. Plaintiff distributes the Programs in source code form, the human-readable form of a computer program that a programmer must have in order to make changes to the program. Plaintiff distributes the versions of the Programs at issue according to the terms of public licenses, the "GNU General Public License" version 2 ("GPL"), and the "GNU Lesser General Public License" (also known as the "GNU Library General Public License") versions 2 and 2.1 ("LGPL") (collectively, "the Licenses"). Copies of the Licenses are attached to this Complaint as Exhibits A–C. The relevant terms of versions 2 and 2.1 of the LGPL are identical, and this Complaint refers to the two versions interchangeably.
- 20. Under the Licenses, Plaintiffs grant certain permissions to other parties to copy, modify and redistribute the programs so long as those parties satisfy certain conditions. In particular, Section 2(b) of the GPL, addressing each licensee, states:

You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License.

Similarly, Section 2 of the LGPL states:

You may modify your copy or copies of the Library or any portion of it, thus forming a

work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also ... cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.

Thus, if a licensee redistributes any of Plaintiff's programs, it may do so only under the terms of the applicable License.

21. The Licenses permit a licensee to distribute the Programs, or works based on the Programs, in object code or executable form, on the condition that the licensee gives recipients access to the source code corresponding to what they distribute. The object code or executable form of a computer program is the form that can actually be run on a computer, but which is not intelligible to the human reader and thus is not practicably modifiable. Section 3 of the GPL states:

You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following:

- a) Accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,
- b) Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange

Section 4 of the LGPL states:

You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

22. The Licenses require that a licensee include with the source code "the scripts used to control compilation and installation" of the software. Section 3 of the GPL:

For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable.

Section 0 of the LGPL states:

For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

- 23. Plaintiff has at no time granted permission to any party to copy, modify or distribute any of the Programs under any terms other than those of the applicable License.
- 24. Upon information and belief, Defendant, via its Linksys division, makes and sells various communications devices and hardware (the "Infringing Products") that contain embedded

executable software (the "Firmware"). Defendant also provides the Firmware itself for download via its Linksys division's website, at http://www.linksys.com.

- 25. Upon information and belief, the Firmware of several of Defendant's products contains one or more of the Programs, or modified versions of the Programs that are substantially similar to the Programs, in object code or executable form. Distribution of this Firmware, either as part of the Infringing Products or by itself, is thus inherently distribution of the Programs contained within and Defendant is therefore required to have Plaintiffs' permission to make that distribution. The only such permission available for the Programs is the contingent one granted under the License.
- 26. Upon information and belief, since at least May 12, 2006, Defendant has distributed to the public copies of Firmware containing Plaintiff's Programs in its Infringing Products and via its website without providing complete and corresponding source code or an offer for source code as required by the Licenses. Defendant distributed Plaintiff's Programs in this manner in the Firmware for Linksys' models EFG120, EFG250, NAS200, SPA400, WAG300N, WAP4400N, WIP300, WMA11B, WRT54GL, WRV200, WRV54G, and WVC54GC, and in the program Quick-VPN.
- 27. Upon information and belief, since at least May 12, 2006, Defendant has distributed to the public copies of Plaintiff's GCC and Binutils programs in object code form via its website without providing complete and corresponding source code within the meaning of the Licenses. Defendant distributed Plaintiff's Programs in this manner in conjunction with distributing the Firmware for Linksys' models EFG120, EFG250, NAS200, SPA400, WAG300N, WAP4400N, WMA11B, WRV54G, WRV200, and WVC54GC.
- 28. Under each of the Licenses, any party that redistributes the Programs in a manner that does not comply with the terms of the applicable License immediately and automatically loses all rights granted under it. Section 4 of the GPL states:

You may not copy, modify, sublicense, or distribute the Program except as expressly

provided under this License. Any attempt otherwise to copy, modify, sublicense or distribute the Program is void, and will automatically terminate your rights under this License.

Section 8 of the LGPL states:

You may not copy, modify, sublicense, link with, or distribute the Library except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, link with, or distribute the Library is void, and will automatically terminate your rights under this License.

As such, any rights Defendant may have had to redistribute any Program offered under any of the Licenses were automatically terminated the instant that Defendant made non-compliant distribution of the Program in its Infringing Products or Firmware. Since the first such violation of each Program's License, Defendant has had no right to distribute that Program, or a modified version of the Program, under any circumstances or conditions.

- 29. On May 12, 2006, Plaintiff notified Defendant of Defendant's unlawful conduct based upon its failure to comply with the Licenses for GCC and Binutils, which it distributed in object code form on its website.
- 30. On July 5, 2006, Defendant, in response to a separate report from Plaintiff, acknowledged that Defendant had distributed the model WIP300 and its Firmware without providing the corresponding source code.
- 31. After July 5, 2006, Defendant corresponded with Plaintiff repeatedly regarding the matter and Plaintiff believed in good faith that a satisfactory resolution of its concerns could be reached.
 - 32. On October 26, 2006, Plaintiff reported to Defendant that several violations previously

reported by Plaintiff remained outstanding. Plaintiff acknowledged that some of the issues raised had been addressed but reiterated that several of Defendant's source distributions remained out of date and that some violations (e.g., those related to QuickVPN and WRV54G) had not been addressed at all.

- 33. On October 30, 2006, Plaintiff sent Defendant an updated list of Defendant's products which violated Plaintiff's Licenses.
- 34. On January 24, 2007, Plaintiff reminded Defendant that Defendent had failed to address several instances of infringement raised by Plaintiff, including that the WRV54G source did not include sufficient scripts and that no source was available for the QuickVPN software.
- 35. On February 1, 2007, the parties, along with Plaintiff's counsel, held a conference call to discuss outstanding issues and a plan to settle the matter of Defendant's infringement.
 - 36. On February 8, 2007, Plaintiff notified Defendant, that:
 - a) the source for its model ADSL2MUE did not include sufficient scripts to control compilation and installation of the software;
 - b) Defendant was again distributing a new version of QuickVPN without providing corresponding source code;
 - c) Defendant was distributing executable copies of GCC, Binutils, and GDB in conjunction with the Firmware for several of its products (including the WAP440N, WMA11B, WVC54G, WVC54GC, WRV200, WAG300N, and EFG120/EFG250) without providing the corresponding source code to these Programs.
- 37. Again, for most of 2007, Plaintiff and Defendant corresponded regarding Plaintiff's concerns and Plaintiff believed those communications would result in an amicable resolution of the dispute.

- 38. On February 15, 2008, Plaintiff, through its counsel, sent Defendant an updated list of Infringing Products.
- 39. On March 25, 2008, through its counsel, Plaintiff sent Defendant correspondence stating again that "FSF is extremely concerned about Linksys' commitment to GPL compliance and does not find the need to constantly monitor and notify Linksys of such issues reasonable or acceptable." Plaintiff also listed its demands for restoring Defendant's right to distribute Plaintiff's Programs and privately resolving the matter of Defendant's prior and ongoing violations:
 - a) Defendent must achieve "full compliance [with the Licenses] with respect to all Linksys products."
 - b) "Linksys shall appoint an officer within its organization to serve as a Free Software Compliance Officer and provide FSF with the identity and contact information of the FSCO."
 - c) "Linksys shall undertake substantial efforts to notify all previous recipients of FSF code from Linksys in a manner that did not comply with the applicable license of their rights in that software and, in particular, of their right to obtain a copy of the complete and corresponding source code from Linksys."
 - d) "Linksys shall compensate FSF ... for its past distribution of FSF programs in a manner that did not comply with the applicable free software license."
- 40. Between April 9 and July 11, 2008, the parties frequently exchanged correspondence regarding outstanding issues. Defendant represented that it had resolved most of the violations raised by Plaintiff. The parties agreed to hold a conference call on July 24, 2008 to discuss the terms of an agreement by which Defendant's right to distribute Plaintiff's software would be restored.
- 41. For a third time, the parties discussed Plaintiff's concerns regarding Defendant's unlicensed use and distribution of the Programs in a good faith attempt to resolve the matter. Unfortunately, those discussions have now proven unfruitful and the parties are at an impasse.

42. Given Defendant's extensive history of violating Plaintiff's Licenses, Plaintiff considers Defendant's current and proposed activities insufficient to ensure Defendant's future compliance. Defendant has refused to meet several of Plaintiff's reasonable requirements for reinstatement of Defendant's right to distribute the Programs. Defendant has not demonstrated that it has meaningfully improved its software review process which failed to prevent previous violations, or that it intends to do so. Defendant has refused to acknowledge its previous violations or inform the users who received Infringing Products of its omissions. And Defendant has refused to provide regular compliance reports to Plaintiff regarding Defendant's pervasive exploitation of Plaintiff's software. Nonetheless, Defendant continues to distribute the Infringing Products and Firmware in violation of Plaintiffs' exclusive rights under the Copyright Act.

COUNT I

COPYRIGHT INFRINGEMENT

- 43. Plaintiff realleges and restates paragraphs 1 through 42 as if more fully set forth herein.
- 44. Plaintiff is, and at all relevant times has been, the copyright holder under United States copyright law in the Programs.
- 45. Defendant's distribution of its Infringing Products and Firmware without approval or authorization by Plaintiff infringes Plaintiff's exclusive copyrights in the Programs pursuant to 17 U.S.C. § 501.
- 46. Plaintiff is entitled to recover from Defendant the amount of its actual damages incurred as a result of the infringement, in such amount as is shown by appropriate evidence upon the trial of this case. 17 U.S.C. § 504.
- 47. Plaintiff is also entitled to injunctive relief pursuant to 17 U.S.C. § 502 and to an order impounding any and all infringing materials pursuant to 17 U.S.C. § 503. Plaintiff has

no adequate remedy at law for Defendant's wrongful conduct because, among other things, (a) Plaintiff's copyrights are unique and valuable assets whose market value is impossible to assess, (b) Defendant's infringement harms Plaintiff such that Plaintiff could not be made whole by any monetary award, and (c) Defendant's wrongful conduct, and the resulting damage to Plaintiff, is continuing.

48. Plaintiff is also entitled to recover its attorneys' fees and costs of suit. 17 U.S.C. § 505.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff respectfully requests judgment against the Defendant as follows:

- (1) That the Court issue injunctive relief against Defendant, and that Defendant, its directors, principals, officers, agents, representatives, servants, employees, attorneys, successors and assigns, and all others in active concert or participation with Defendant, be enjoined and restrained from copying, modifying, distributing or making any other infringing use of Plaintiff's software;
- (2) That the Court order Defendant to pay Plaintiff's actual and consequential damages incurred, in an amount to be determined at trial or, in the alternative, statutory damages as set forth in 17 U.S.C. § 504(c);
- (3) That the Court order Defendant to account for and disgorge to Plaintiff all profits derived by Defendant from its unlawful acts;
- (4) That the Court order Defendant to pay Plaintiff's litigation expenses, including reasonable attorney's fees and costs of this action; and
- (5) That the Court grant Plaintiff any such further relief as the Court may deem just and proper.

Dated: New York, Ne	w York
December 11, 2008	

Respectfully submitted,

SOFTWARE FREEDOM LAW CENTER, INC.

By: _____

Daniel B. Ravicher (DR1498) Aaron K. Williamson (AW1337) 1995 Broadway, 17th Floor New York, NY 10023-5882

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Attorneys for Plaintiff Free Software Foundation, Inc.

EXHIBIT A

The GNU General Public License

Version 2, June 1991

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51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA

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Preamble

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To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

We protect your rights with two steps: (1) copyright the software, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the software.

Also, for each author's protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modified by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

The precise terms and conditions for copying, distribution and modification follow.

TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION and MODIFICATION

- 0) This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The "Program", below, refers to any such program or work, and a "work based on the Program" means either the Program or any derivative work under copyright law: that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term "modification".) Each licensee is addressed as "you".
 - Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program (independent of having been made by running the Program). Whether that is true depends on what the Program does.
- 1) You may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of this License along with the Program.
 - You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.
- 2) You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:
 - a) You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change.
 - b) You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License.
 - c) If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may

redistribute the program under these conditions, and telling the user how to view a copy of this License. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Program, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Program. In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

- 3) You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following:
 - a) Accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,
 - b) Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,
 - c) Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.)

The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as

distribution of the source code, even though third parties are not compelled to copy the source along with the object code.

- 4) You may not copy, modify, sublicense, or distribute the Program except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense or distribute the Program is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.
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If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

8) If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program

- under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.
- 9) The Free Software Foundation may publish revised and/or new versions of the General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.
 - Each version is given a distinguishing version number. If the Program specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of this License, you may choose any version ever published by the Free Software Foundation.
- 10) If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

- 11) BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.
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END OF TERMS AND CONDITIONS

EXHIBIT B

The GNU Library General Public License

Version 2, June 1999

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[This is the first released version of the library GPL. It is numbered 2 because it goes with version 2 of the ordinary GPL.]

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public Licenses are intended to guarantee your freedom to share and change free software—to make sure the software is free for all its users.

This license, the Library General Public License, applies to some specially designated Free Software Foundation software, and to any other libraries whose authors decide to use it. You can use it for your libraries, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things.

To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the library, or if you modify it.

For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link a program with the library, you must provide complete object files to the recipients so that they can relink them with the library, after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

Our method of protecting your rights has two steps: (1) copyright the library, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the library.

Also, for each distributor's protection, we want to make certain that everyone understands that there is no warranty for this free library. If the library is modified by someone else and passed on, we want its recipients to know that what they have is not the original version, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that companies distributing free software will individually obtain patent licenses, thus in effect transforming the program into proprietary software. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License, which was designed for utility programs. This license, the GNU Library General Public License, applies to certain designated libraries. This license is quite different from the ordinary one; be sure to read it in full, and don't assume that anything in it is the same as in the ordinary license.

The reason we have a separate public license for some libraries is that they blur the distinction we usually make between modifying or adding to a program and simply using it. Linking a program with a library, without changing the library, is in some sense simply using the library, and is analogous to running a utility program or application program. However, in a textual and legal sense, the linked executable is a combined work, a derivative of the original library, and the ordinary General Public License treats it as such.

Because of this blurred distinction, using the ordinary General Public License for libraries did not effectively promote software sharing, because most developers did not use the libraries. We concluded that weaker conditions might promote sharing better.

However, unrestricted linking of non-free programs would deprive the users of those programs of all benefit from the free status of the libraries themselves. This Library General Public License is intended to permit developers of non-free programs to use free libraries, while preserving your freedom as a user of such programs to change the free libraries that are incorporated in them. (We have not seen how to achieve this as regards changes in header files, but we have achieved it as regards changes in the actual functions of the Library.) The hope is that this will lead to faster development of free libraries.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, while the latter only works together with the library.

Note that it is possible for a library to be covered by the ordinary General Public License rather than by this special one.

TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION and MODIFICATION

O) This License Agreement applies to any software library which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Library General Public License (also called "this License"). Each licensee is addressed as "you".

A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1) You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

- 2) You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:
 - a) The modified work must itself be a software library.
 - b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.
 - c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.
 - d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when

the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3) You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4) You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5) A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

- 6) As an exception to the Sections above, you may also compile or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.
 - You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:
 - a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)
 - b) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.
 - c) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

d) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

- 7) You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:
 - a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.
 - b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.
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If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

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END OF TERMS AND CONDITIONS

EXHIBIT C

The GNU Lesser General Public License

Version 2.1, February 1999

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Preamble

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This license, the Lesser General Public License, applies to some specially designated software—typically libraries—of the Free Software Foundation and other authors who decide to use it. You can use it too, but we suggest you first think carefully about whether this license or the ordinary General Public License is the better strategy to use in any particular case, based on the explanations below.

When we speak of free software, we are referring to freedom of use, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish); that you receive source code or can get it if you want it; that you can change the software and use pieces of it in new free programs; and that you are informed that you can do these things.

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Finally, software patents pose a constant threat to the existence of any free program. We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder. Therefore, we insist that any patent license obtained for a version of the library must be consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it does *Less* to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure

that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

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- 1) You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.
 - You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.
- 2) You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

- a) The modified work must itself be a software library.
- b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.
- c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.
- d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.
 - (For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3) You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4) You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you

accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5) A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

- 6) As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.
 - You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:
 - a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a

modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

- b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.
- c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.
- d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.
- e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

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