GPLv3 Third Discussion Draft Rationale

Free Software Foundation

Copyright © 2007 Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA

Verbatim copying and distribution of this entire article are permitted worldwide, without royalty, in any medium, provided this notice is preserved.

Contents

Foreword

This two-part document states the rationale for the changes in the third discussion draft of GPLv3. Part I provides a discussion of the most significant changes we have made since the release of the previous draft, organized by broad subject matter. Part II is an annotated markup version of the third draft, with ~~strikeout~~ indicating text present in the second discussion draft that we have removed and **bold** indicating text we have added. The annotations state the reasons for specific changes; some annotations refer the reader to Part I. We refer to the first, second and third discussion drafts of GPLv3 as "Draft 1," "Draft 2" and "Draft 3," respectively.

We offer our apologies to the community for the delay in releasing Draft 3. Our original plan was to publish a third discussion draft in mid-autumn of 2006. The unforeseen agreement between Microsoft Corporation and Novell, Inc., announced in November, presents grave threats to users of free software. It was necessary for us to take the time carefully to develop mechanisms in GPLv3 that would deter agreements of this sort and provide strong defenses against their accompanying dangers. There were additional important and difficult issues of law and policy that we wished to resolve prior to publication of a new draft.

Given the extent of the changes that we have made in Draft 3, we will not treat Draft 3 as a "last call" draft. A public discussion period of not less than 60 days will begin on the date of our release of Draft 3, after which we will release a last call draft. Then, following a 30-day comment period, we will formally adopt the final version of GPLv3.

Part I
Discussion of Principal Changes

1 Technical Barriers to Modification

GPLv3 introduces provisions that respond to the growing practice of distributing GPL-covered programs in devices that employ technical means to restrict users from installing and running modified versions. This practice thwarts the expectations of developers and users alike, because the right to modify is one of the core freedoms the GPL is designed to secure. In Draft 3 we have made a number of significant changes to these provisions. In brief, we condition the right to convey object code in a defined class of "User Products," under certain circumstances, on providing whatever information is required to enable a recipient to replace the object code with a functioning modified version.

1.1 Provisions Moved to Section 6

We have moved the technical restrictions provisions from section 1, where they formed part of the definition of Corresponding Source, to section 6, where they are presented as a condition on the right to convey object code works. Some critics of the provisions in our earlier drafts focused on what they regarded as an inappropriate equation of cryptographic keys with source code. Placing the requirements in section 6 should make their purpose and reasonableness more evident.[1]

The GPLv2 provisions requiring distribution of source code apply only to distribution of binaries, because distribution of binaries without source code can deny the user the effective freedom to change the program. Technical restrictions are similar in that they can produce the same harmful result. The purpose of the source code requirement is to enable the recipient to rebuild and use a functioning binary from possibly-modified source *in situ*. The GPLv3 provisions concerning technical restrictions ensure that they cannot interfere with that result.

1.2 User Products

In our earlier drafts, the requirement to provide encryption keys applied to all acts of conveying object code, as this requirement was part of the general definition of Corresponding Source. Section 6 of Draft 3 now limits the

[1] Moving the technical restrictions provisions out of the definition of Corresponding Source is also appropriate because we have placed additional conditions regarding Corresponding Source in the second paragraph of section 10 and the third paragraph of section 11. The policy concerns that inspired those provisions are satisfied if complete source code is made available.

applicability of the technical restrictions provisions to object code conveyed in, with, or specifically for use in a defined class of "User Products."

In our discussions with companies and governments that use specialized or enterprise-level computer facilities, we found that sometimes these organizations actually want their systems not to be under their own control. Rather than agreeing to this as a concession, or bowing to pressure, they ask for this as a preference. It is not clear that we need to interfere, and the main problem lies elsewhere.

While imposing technical barriers to modification is wrong regardless of circumstances, the areas where restricted devices are of the greatest practical concern today fall within the User Product definition. Most, if not all, technically-restricted devices running GPL-covered programs are consumer electronics devices, and we expect that to remain true in the near future. Moreover, the disparity in clout between the manufacturers and these users makes it difficult for the users to reject technical restrictions through their weak and unorganized market power. Even if limited to User Products, as defined in Draft 3, the provision still does the job that needs to be done. Therefore we have decided to limit the technical restrictions provisions to User Products in this draft.

The core of the User Product definition is a subdefinition of "consumer product" taken verbatim from the Magnuson-Moss Warranty Act, a federal consumer protection law in the United States: "any tangible personal property which is normally used for personal, family, or household purposes."[2] The United States has had three decades of experience of liberal judicial and administrative interpretation of this definition in a manner favorable to consumer rights.[3] We mean for this body of interpretation to guide interpretation of the consumer product subdefinition in section 6, which will provide a degree of legal certainty advantageous to device manufacturers and downstream licensees alike. Our incorporation of such legal interpretation is in no way intended to work a general choice of United States law for GPLv3 as a whole. The paragraph in section 6 defining "User Product" and "consumer product" contains an explicit statement to this effect, bracketed for discussion. We will decide whether to retain this statement in the license text after gathering comment on it.

One well-established interpretive principle under Magnuson-Moss is that ambiguities are resolved in favor of coverage. That is, in cases where it is

[2] 15 U.S.C. § 2301.

[3] The Magnuson-Moss consumer product definition itself has been influential in the United States and Canada, having been adopted in several state and provincial consumer protection laws.

not clear whether a product falls under the definition of consumer product, the product will be treated as a consumer product.[4] Moreover, for a given product, "normally used" is understood to refer to the typical use of that type of product, rather than a particular use by a particular buyer. Products that are commonly used for personal as well as commercial purposes are consumer products, even if the person invoking rights is a commercial entity intending to use the product for commercial purposes.[5] Even a small amount of "normal" personal use is enough to cause an entire product line to be treated as a consumer product under Magnuson-Moss.[6]

We do not rely solely on the definition of consumer product, however, because in the area of components of dwellings we consider the settled interpretation under Magnuson-Moss underinclusive. Depending on how such components are manufactured or sold, they may or may not be considered Magnuson-Moss consumer products.[7] Therefore, we define User Products as a superset of consumer products that also includes "anything designed or sold for incorporation into a dwelling."

Although the User Products rule of Draft 3 reflects a special concern for individual purchasers of devices, we wrote the rule to cover a category of products, rather than categorizing users. Discrimination against organizational users has no place in a free software license. Moreover, a rule that applied to individual use, rather than to use of products normally used by individuals, would have too narrow an effect. Because of its incorporation of the liberal Magnuson-Moss interpretation of "consumer product," the User Products rule benefits not only individual purchasers of User Products but also all organizational purchasers of those same kinds of products, regardless of their intended use of the products.

---

[4] 16 C.F.R. § 700.1(a); *McFadden v. Dryvit Systems, Inc.*, 54 U.C.C. Rep. Serv.2d 934 (D. Ore. 2004).

[5] 16 C.F.R. § 700.1(a). Numerous court decisions interpreting Magnuson-Moss are in accord; see, e.g., *Stroebner Motors, Inc. v. Automobili Lamborghini S.p.A.*, 459 F. Supp.2d 1028, 1033 (D. Hawaii 2006).

[6] *Tandy Corp. v. Marymac Industries, Inc.*, 213 U.S.P.Q. 702 (S.D. Tex. 1981). In this case, the court concluded that TRS-80 microcomputers were consumer products, where such computers were designed and advertised for a variety of users, including small businesses and schools, and had only recently been promoted for use in the home.

[7] Building materials that are purchased directly by a consumer from a retailer, for improving or modifying an existing dwelling, are consumer products under Magnuson-Moss, but building materials that are integral component parts of the structure of a dwelling at the time that the consumer buys the dwelling are not consumer products. 16 C.F.R. §§ 700.1(c)–(f); Federal Trade Commission, Final Action Concerning Review of Interpretations of Magnuson-Moss Warranty Act, 64 Fed. Reg. 19,700 (April 22, 1999); see also, e.g., *McFadden*, 54 U.C.C. Rep. Serv.2d at 934.

We considered including medical devices for implantation in the human body in the User Product definition. We decided against this, however, because there may be legitimate health and safety regulations concerning inexpert and reckless modifications of medical devices. In any case, it will probably be necessary to convince medical device regulators to allow user-modifiable implantable medical devices. We plan to begin a campaign to address this issue.

1.3 Installation Information

In our earlier drafts we devoted much care to devising a detailed technical definition of the cryptographic information that would enable GPL licensees to install functioning modified versions, without affecting legitimate uses of encryption. The result was a provision that some found too complex and difficult to understand, while others continued to raise concerns about overinclusion. In fact, the complexity and its resultant problems were never necessary, since our underlying goal was quite simple.

In Draft 3 we instead use a definition of "Installation Information" in section 6 that is as simple and clear as that goal. Installation Information is information that is "required to install and execute modified versions of a covered work . . . from a modified version of its Corresponding Source," in the same User Product for which the covered work is conveyed. We provide guidance concerning how much information must be provided: it "must suffice to ensure that the continued functioning of the modified object code is in no case prevented or interfered with solely because modification has been made." For example, the information provided would be insufficient if it enabled a modified version to run only in a disabled fashion, solely because of the fact of modification (regardless of the actual nature of the modification). The information need not consist of cryptographic keys; Installation Information may be "any methods, procedures, authorization keys, or other information."

1.4 Ephemeral Propagation

Some have expressed concern that our technical restrictions provisions would extend to such cases as the ordinary use of a walkup Internet kiosk. We do not believe ephemeral propagation of this sort should amount to "conveying" anywhere, and are confident that it is not conveying under United

States copyright law.[8] Nevertheless, we have sought in Draft 3 to satisfy such concerns by making clear that the requirement to provide Installation Information applies only in the case of conveying of object code that "occurs as part of a transaction in which the right of possession and use ... is transferred to the recipient in perpetuity or for a fixed term." The particular characterization of the transaction is immaterial; the requirements cover, for example, outright sales, long-term leases, and installment purchases of User Products.

1.5 Inherently Unmodifiable Copies

We do not object to the practice of conveying object code in a mode not practically susceptible to modification by any party, such as code burned in ROM or embedded in silicon. What we find ethically objectionable is the refusal to pass on to the downstream licensee the real right to modify, coupled with the retention of that right in the device manufacturer or some other party. Our text has never prohibited distribution in ROM, but we have decided to make the point explicitly, for clarity's sake. Accordingly, our text states that the requirement to provide Installation Information "does not apply if neither you nor any third party retains the ability to install modified object code on the User Product."

1.6 Network Access and Other Limitations

The definition of Installation Information states that the information provided "must suffice to ensure that the continued functioning of the modified object code is in no case prevented or interfered with solely because modification has been made." We did not consider it necessary to define "continued functioning" further. However, we believed it would be appropriate to provide some additional guidance concerning the scope of GPLv3-compliant action or inaction that distributors of technically-restricted User Products can take with respect to a downstream recipient who replaces the conveyed object code with a modified version. We make clear that GPLv3 implies no obligation "to continue to provide support service, warranty, or updates" for such a work.

[8]See, e.g., *National Conference of Bar Examiners v. Multistate Legal Studies, Inc.*, 495 F. Supp. 34, 37 (N.D. Ill. 1980). Here the court concluded that no "publication" for copyright law purposes took place where tests were temporarily distributed and retrieved at the end of the testing period. Note that an Internet kiosk would not be classified as a User Product.

Most technically-restricted User Products are designed to communicate across networks. It is important for both users and network providers to know when denial of network access to devices running modified versions becomes a GPL violation. We settled on a rule that permits denial of access in two cases: "when the modification itself materially and adversely affects the operation of the network," and when the modification itself "violates the rules and protocols for communication across the network." The second case is deliberately drawn in general terms. We intend it to serve as a foundation for development of reasonable enforcement policies that respect recipients' right to modify while recognizing the legitimate interests of network providers.

1.7 Removal of Section 3, First Paragraph

We have removed the first paragraph of section 3, the scope of which overlapped with the more detailed technical restrictions provisions we have placed in section 6, as well as with the more general prohibition on further restrictions now stated in the third paragraph of section 10.

2 Paracopyright

What was the second paragraph of section 3 in Draft 2, concerning so-called anticircumvention law, has been broken up into two paragraphs. In the first paragraph we have replaced the reference to the Digital Millennium Copyright Act, a United States statute, with a corresponding international legal reference to anticircumvention laws enacted pursuant to the 1996 WIPO treaty and any similar laws. Lawyers outside the United States have worried that a United States statutory reference could be read as indicating a choice for application of United States law to the license as a whole, which of course was not our intention. Further research has caused us to doubt the view that only one or the other paragraph of section 3 will typically be effective in a country that has enacted an anticircumvention law. Moreover, we believe that several national anticircumvention laws have been or will be structured more similarly to the anticircumvention provisions of the Digital Millennium Copyright Act than to the counterpart provisions of the European Union Copyright Directive.

In the second paragraph of section 3, we now state more precisely that a conveying party waives the power to forbid circumvention of technological measures only to the extent that such circumvention is accomplished through the exercise of GPL rights in the conveyed work. We have made two changes in the disclaimer of intention regarding limitations on the design and use of the work. First, we make clear that the referenced "legal rights" are specifically rights arising under anticircumvention law. Second, we now refer to the conveying party's rights in addition to third party rights, as in some cases the conveying party will also be the party legally empowered to enforce or invoke rights arising under anticircumvention law.

3 Patents

Software patenting is a harmful and unjust policy, and should be abolished; recent experience makes this all the more evident. Since many countries grant patents that can apply to and prohibit software packages, in various guises and to varying degrees, we seek to protect the users of GPL-covered programs from those patents, while at the same time making it feasible for patent holders to contribute to and distribute GPL-covered programs as long as they do not attack the users of those programs.

Therefore, we have designed GPLv3 to reduce the patent risks that distort and threaten the activities of users who make, run, modify and share free software. At the same time, we have given due consideration to practical goals such as certainty and administrability for patent holders that participate in distribution and development of GPL-covered software. Our policy requires each such patent holder to provide appropriate levels of patent assurance to users, according to the nature of the patent holder's relationship to the program.

Draft 3 features several significant changes concerning patents. We have made improvements to earlier wording, clarified when patent assertion becomes a prohibited restriction on GPL rights, and replaced a distribution-triggered non-assertion covenant with a contribution-based patent license grant. We have also added provisions to block collusion by patent holders with software distributors that would extend patent licenses in a discriminatory way.

3.1 Contributors and Contributions

Draft 3 introduces the terms "contributor" and "contribution," which are used in the third paragraph of section 10 and the first paragraph of section 11, discussed successively in the following two subsections. Section 0 defines a contributor as "a party who licenses under this License a work on which the Program is based." That work is the "contribution" of that contributor. In other words, each received GPLv3-covered work is associated with one or more contributors, making up the finite set of upstream GPLv3 licensors for that work. Viewed from the perspective of a recipient of the Program, contributors include all the copyright holders for the Program, other than copyright holders of material originally licensed under non-GPL terms and later incorporated into a GPL-covered work. The contributors are therefore the initial GPLv3 licensors of the Program and all subsequent upstream licensors who convey, under the terms of section 5, modified works on which the Program is based.

For a contributor whose contribution is a modified work conveyed under section 5, the contribution is “the entire work, as a whole” which the contributor is required to license under GPLv3. The contribution therefore includes not just the material added or altered by the contributor, but also the pre-existing material the contributor copied from the upstream version and retained in the modified version. Our usage of “contributor” and “contribution” should not be confused with the various other ways in which those terms are used in certain other free software licenses.[9]

3.2 Patent Assertion as a Further Restriction

It is generally understood that GPLv2 implies some limits on a licensee’s power to assert patent claims against the use of GPL-covered works. There is, however, no general agreement concerning the nature, scope, and source of those limitations. To the extent that they are grounded in legal doctrines of patent exhaustion or implied patent license, such limits necessarily will vary substantially across jurisdictions.

Careful readers of the GPL have suggested that its explicit prohibition against imposition of further restrictions[10] has, or ought to have, implications for those who assert patents against other licensees. Draft 2 took some steps to clarify this point in a manner not specific to patents, by describing the imposition of “a license fee, royalty, or other charge” for exercising GPL rights as one example of an impermissible further restriction. In Draft 3 we have clarified further that the requirement of non-imposition of further restrictions has specific consequences for litigation accusing GPL-covered programs of infringement. Section 10 now states that “you may not initiate litigation (including a cross-claim or counterclaim in a lawsuit) alleging that any patent claim is infringed by making, using, selling, offering for sale, or importing the Program (or the contribution of any contributor).” That is to

[9]Cf., e.g., Apache License, version 2.0, section 1; Eclipse Public License, version 1.0, section 1; Mozilla Public License, version 1.1, section 1.1.

[10]GPLv2, section 6; Draft 3, section 10, third paragraph.

say, a patent holder's licensed permissions to use a work under GPLv3 may be terminated under section 8 if the patent holder files a lawsuit alleging that use of the work, or of any upstream GPLv3-licensed work on which the work is based, infringes a patent.

The patent license grant of the first paragraph of section 11 no longer applies to those who merely distribute works without modification. (We explain why we made this change in the next subsection.) Such parties are nonetheless subject to the conditions stated in section 10. Unlike the patent license, which establishes a defense for downstream users lasting for as long as they remain in compliance with the GPL, the commitment not to sue that arises under section 10 is one that the distributor can end, so long as the distributor also ceases to distribute. This is because a party who initiates patent litigation in violation of section 10 risks termination of its licensed permissions by the copyright holders of the work.

In Draft 3 the termination provision of section 8 has been revised to indicate that, if a licensee violates the GPL, a contributor may terminate any patent licenses that it granted under the first paragraph of section 11 to that licensee, in addition to any copyright permissions the contributor granted to the licensee. Therefore, a contributor may terminate the patent licenses it granted to a downstream licensee who brings patent infringement litigation in violation of section 10.

The changes we have made to sections 8, 10 and 11, taken as a whole, eliminate the special need for the narrow patent retaliation provision of section 2, which we have removed in Draft 3.

3.3 Contribution-Based Patent License Grant

Our previous drafts featured a patent license grant triggered by all acts of distribution of GPLv3-covered works.[11] Many patent-holding companies objected to this policy. They have made two objections: (1) the far-reaching impact of the patent license grant on the patent holder is disproportionate to the act of merely distributing code without modification or transformation, and (2) it is unreasonable to expect an owner of vast patent assets to exercise requisite diligence in reviewing all the GPL-covered software that it provides to others. Some expressed particular concern about the consequences of "inadvertent" distribution.

The argument that the impact of the patent license grant would be "disproportionate," that is to say unfair, is not valid. Since software patents

[11] In Draft 2 we rewrote the patent license as a covenant not to assert patent claims. We explain why we reverted to the form of a patent license grant in § 3.3.2.

are weapons that no one should have, and using them for aggression against free software developers is an egregious act, preventing that act cannot be unfair.

However, the second argument seems valid in a practical sense. A typical GNU/Linux distribution includes thousands of programs. It would be quite difficult for a redistributor with a large patent portfolio to review all those programs against that portfolio every time it receives and passes on a new version of the distribution. Moreover, this question raises a strategic issue. If the GPLv3 patent license requirements convince patent-holding companies to remain outside the distribution path of all GPL-covered software, then these requirements, no matter how strong, will cover few patents.

We concluded it would be more effective to make a partial concession which would lead these companies to feel secure in doing the distribution themselves, so that the conditions of section 10 would apply to assertion of their patents. We therefore made the stricter section 11 patent license apply only to those distributors that have modified the program. The other changes we have made in sections 10 and 11 provide strengthened defenses against patent assertion and compensate partly for this concession.

We have rejected a suggestion by companies that the patent license grant should only cover patent claims that read on the “changes” and “additions” that the contributor has made to a work, perhaps also extending, in some ill-defined way, to patent claims that are infringed specifically as a result of the combination of those modifications with the rest of the work.

Such a narrow rule is unacceptable because it would do too little. Given the manner in which software patent claims are drafted, we fear that few patent claims would fit that criterion and be licensed. Even substantial modifications to a work are typically fragmentary from a patent infringement perspective. They are not in themselves likely to read on a patent claim drawn to cover a broader or complete system or method. Moreover, in cases where a patent claim held by a distributor relates closely to the modification it has made to a work, it will often be the case that the modification itself does not “cause” the entire modified work to read on the claim, such as when the claim is broad enough to cover the original work in the form in which it was received by the distributor.

Therefore, in Draft 3, the first paragraph of section 11 states that a contributor’s patent license covers all the essential patent claims implemented by the whole program as that contributor distributes it. Contributors of modified works grant a patent license to claims that read on “the entire work, as a whole.” This is the work that the copyleft clause in section 5 requires the contributor to license under GPLv3; it includes the material the contributor has copied from the upstream version that the contributor has modified. The first paragraph of section 11 does not apply to those that redistribute the program without change.[12]

We hope that this decision will result in fairly frequent licensing of patent claims by contributors. A contributor is charged with awareness of the fact that it has modified a work and provided it to others; no act of contribution should be treated as inadvertent. Our rule also requires no more work, for a contributor, than the weaker rule proposed by the patent holders. Under their rule, the contributor must always compare the entire work against its patent portfolio to determine whether the combination of the modifications with the remainder of the work cause it to read on any of the contributor's patent claims.

3.3.1 Essential Patent Claims

We have made three changes to the definition of "essential patent claims" in section 0. This definition now serves exclusively to identify the set of patent claims licensed by a contributor under the first paragraph of section 11.

First, we have clarified when essential patent claims include sublicensable claims that have been licensed to the contributor by a third party.[13] Most commercial patent license agreements that permit sublicensing do so under restrictive terms that are inconsistent with the requirements of the GPL. For example, some patent licenses allow the patent licensee to sublicense but require collection of royalties from any sublicensees. The patent licensee could not distribute a GPL-covered program and grant the recipient a patent sublicense for the program without violating section 12 of GPLv3.[14] In rare cases, however, a conveying party can freely grant patent sublicenses to downstream recipients without violating the GPL.

Draft 3 now defines essential patent claims, for a given party, as a subset of the claims "owned or controlled" by the party. The definition states that "control includes the right to grant sublicenses in a manner consistent with the requirements of this License." Therefore, in the case of a patent license that requires collection of royalties from sublicensees, essential patent claims would not include any claims sublicensable under that patent license,

[12] An implied patent license from the distributor, however, may arise by operation of law. See the final paragraph of section 11. Moreover, distributors are subject to the limits on patent assertion contained in the third paragraph of section 10.

[13] This issue is typically handled in other free software licenses having patent licensing provisions by use of the unhelpful term "licensable," which is either left undefined or is given an ambiguous definition.

[14] Draft 3 provides a new example in section 12 that makes this point clear.

because sublicenses to those claims could not be granted consistent with section 12.

Second, we now state that essential patent claims are those "that would be infringed by some manner, permitted by this License, of making, using, or selling the work." This modified wording is intended to make clear that a patent claim is "essential" if some mode of usage would infringe that claim, even if there are other modes of usage that would not infringe.

Third, we have clarified that essential patent claims "do not include claims that would be infringed only as a consequence of further modification of the work." That is to say, the set of essential patent claims licensed under the first paragraph of section 11 is fixed by the the particular version of the work that was contributed. The claim set cannot expand as a work is further modified downstream. (If it could, then any software patent claim would be included, since any software patent claim can be infringed by some further modification of the work.)[15]

3.3.2 Change Back from Covenant to License

The first paragraph of section 11 is meant to give an effective defense to assertion of a contributor's patent, even if the contributor later assigns that patent to a third party. In the United States, a patent license is generally understood to have the default property of running with the associated patent, which means that a subsequent owner of the patent acquires it subject to any previously-granted licenses.[16] By contrast, in the United States, a covenant not to sue is seen as personal to the covenanting parties, and it is less clear that it would automatically bind future owners of the patent without notice or specific wording designed to have that effect. We have decided, therefore, to revert the form of the first paragraph of section 11 to a patent license grant, in place of the covenant not to assert patent claims of Draft 2. In making this decision, we were influenced also by the greater comfort some lawyers appeared to derive from the more familiar construct of a patent license, though the basis for that comfort does not seem entirely rational.[17]

[15] However, "the work" should not be understood to be restricted to a particular mechanical affixation of, or medium for distributing, a program, where the same program might be provided in other forms or in other ways that may be captured by other patent claims held by the contributor.

[16] See, e.g., *L.L. Brown Paper Co. v. Hydroiloid, Inc.*, 118 F.2d 674, 677 (2d Cir. 1941). We are told that a similar rule applies under German law.

[17] These practitioners appear to make two assumptions that we find questionable: (a) mere recitation in a copyright license provision of certain magic words associated with

3.4 Regulation of Collusive Practices

Section 7 of GPLv2 (now section 12 of GPLv3) has seen some success in deterring conduct that would otherwise result in denial of full downstream enjoyment of GPL rights. Experience has shown us that more is necessary, however, to ensure adequate community safety where companies act in concert to heighten the anticompetitive use of patents that they hold or license. Previous drafts of GPLv3 included a "downstream shielding" provision in section 11, which we have further refined in Draft 3; it is now found in the third paragraph of section 11. In addition, Draft 3 introduces two new provisions in section 11, located in the fourth and fifth paragraphs, that address the problem of collusive extension of patent forbearance promises that discriminate against particular classes of users and against the exercise of particular freedoms. This problem has been made more acute by the recent Microsoft/Novell deal.

3.4.1 Definition of "Patent License"

The term "patent license," as used in the third through fifth paragraphs of section 11, is not meant to be confined to agreements formally identified or classified as patent licenses. The new second paragraph of section 11 makes this clear by defining "patent license," for purposes of the subsequent three paragraphs, as "a patent license, a covenant not to bring suit for patent infringement, or any other express agreement or commitment, however denominated, not to enforce a patent." The definition does not include patent licenses that arise by implication or operation of law, because the third through fifth paragraphs of section 11 are specifically concerned with explicit promises that purport to be legally enforceable.

3.4.2 Downstream Shielding

The downstream shielding provision of section 11 responds particularly to the problem of exclusive deals between patent holders and distributors, which threaten to distort the free software distribution system in a manner adverse to developers and users. Draft 2 added a source code availability option to this provision, as a specific alternative to the general requirement to shield downstream users from patent claims licensed to the distributor. A distributor conveying a covered work knowingly relying on a patent license

patent licenses is enough to make such a provision more akin to a formal patent license agreement than to a covenant not to sue, and (b) the absence of such magic words by itself causes such a provision not to have the relevant properties of a patent license.

may comply with the provision by ensuring that the Corresponding Source of the work is publicly available, free of charge. We retained the shielding option in Draft 2 because we did not wish to impose a general requirement to make source code available to all, which has never been a GPL condition.

The addition of the source code availability option was supported by the free software vendors most likely to be affected by the downstream shielding provision. Enterprises that primarily use and occasionally distribute free software, however, raised concerns regarding the continued inclusion of a broadly-worded requirement to "shield," which appears to have been mistakenly read by those parties as creating an obligation to indemnify. To satisfy these concerns, in Draft 3 we have replaced the option to shield with two specific alternatives to the source code availability option. The distributor may comply by disclaiming the patent license it has been granted for the conveyed work, or by arranging to extend the patent license to downstream recipients.[18] The GPL is intended to permit private distribution as well as public distribution, and the addition of these options ensures that this remains the case, even though we expect that distributors in this situation will usually choose the source code availability option.

Without altering its underlying logic, we have modified the phrasing of the requirement to make clear that it is activated only if the Corresponding Source is not already otherwise publicly available. (Most often it will, in fact, already be available on some network server operated by a third party.) Even if it is not already available, the option to "cause the Corresponding Source to be so available" can then be satisfied by verifying that a third party has acted to make it available. That is to say, the affected distributor need not itself host the Corresponding Source to take advantage of the source code availability option. This subtlety may help the distributor avoid certain peculiar assumptions of liability.

We have made two other changes to the downstream shielding provision. The phrase "knowingly rely" was left undefined in our earlier drafts; in Draft 3 we have provided a detailed definition. We have also deleted the condition precedent, added in Draft 2, that the relied-upon patent license be one that is non-sublicensable and "not generally available to all"; this was imprecise in Draft 2 and is unnecessary in Draft 3. In nearly all cases in which the "knowingly relying" test is met, the patent license will indeed not be sublicensable or generally available to all on free terms. If, on the other

[18] The latter option, if chosen, must be done "in a manner consistent with the requirements of this License"; for example, it is unavailable if extension of the patent license would result in a violation of section 12. Cf. the discussion of sublicensable patent claims in § 3.3.1.

hand, the patent license is generally available under terms consistent with the requirements of the GPL, the distributor is automatically in compliance, because the patent license has already been extended to all downstream recipients. If the patent license is sublicensable on GPL-consistent terms, the distributor may choose to grant sublicenses to downstream recipients instead of causing source code to be publicly available. In such a case, if the distributor is also a contributor, it will already have granted a patent sublicense by operation of the first paragraph of section 11,[19] and so it need not do anything further to comply with the third paragraph.

3.4.3 Discriminatory Patent Promises

A software patent forbids the use of a technique or algorithm, and its existence is a threat to all software developers and users. A patent holder can use a patent to suppress any program which implements the patented technique, even if thousands of other techniques are implemented together with it. Both free software and proprietary software are threatened with death in this way.

However, patents threaten free software with a fate worse than death: a patent holder might also try to use the patent to impose restrictions on use or distribution of a free program, such as to make users feel they must pay for permission to use it. This would effectively make it proprietary software, exactly what the GPL is intended to prevent.

Novell and Microsoft have recently attempted a new way of using patents against our community, which involves a narrow and discriminatory promise by a patent holder not to sue customers of one particular distributor of a GPL-covered program. Such deals threaten our community in several ways, each of which may be regarded as de facto proprietization of the software. If users are frightened into paying that one distributor just to be safe from lawsuits, in effect they are paying for permission to use the program. They effectively deny even these customers the full and safe exercise of some of the freedoms granted by the GPL. And they make disfavored free software developers and distributors more vulnerable to attacks of patent aggression, by dividing them from another part of our community, the commercial users that might otherwise come to their defense.

We have added the fourth and fifth paragraphs of section 11 to combat this threat. This subsection briefly describes the operation of the new provisions. We follow it with a more detailed separate note on the Mi-

[19] See § 3.3.1.

crosoft/Novell patent deal, in which we provide an extensive rationale for these measures.

Section 11, Fourth Paragraph. As noted, one effect of the discriminatory patent promise is to divide and isolate those who make free software from the commercial users to whom the promise is extended. This deprives the noncommercial developers of the communal defensive measures against patents made possible by the support of those commercial users. The fourth paragraph of section 11 operates to restore effective defenses to the targets of patent aggression.

A patent holder becomes subject to the fourth paragraph of section 11 when it enters into a transaction or arrangement that involves two acts: (1) conveying a GPLv3-covered work, and (2) offering to some, but not all, of the work's eventual users a patent license for particular activities using specific copies of the covered work. This paragraph only operates when the two triggering acts are part of a single arrangement, because the patent license is part of the arrangement for conveying, which requires copyright permission. Under those conditions, the discriminatory patent license is "automatically extended to all recipients of the covered work and works based on it."

This provision establishes a defense to infringement allegations brought by the patent holder against any users of the program who are not covered by the discriminatory patent license. That is to say, it gives all recipients the benefit of the patent promise that the patent holder extended only to some. The effect is to make contributing discriminatory promises of patent safety to a GPL distribution essentially like contributing code. In both cases, the operation of the GPL extends license permission to everyone that receives a copy of the program.

Section 11, Fifth Paragraph. The fourth paragraph of section 11 gives users a defense against patent aggression brought by the party who made the discriminatory patent promise that excluded them. By contrast, the fifth paragraph stops free software vendors from contracting with patent holders to make discriminatory patent promises. In effect, the fifth paragraph extends the principle of section 12 to situations involving collusion between a patent holder and a distributor.

Under this provision, a distributor conveying a GPL-covered program may not make an arrangement to get a discriminatory patent promise from a third party for its customers, covering copies of the program (or products that contain the program), if the arrangement requires the distributor to make payment to the third party based on the extent of its activity in conveying the program, and if the third party is itself in the business of distributing software. Unlike the fourth paragraph, which creates a legal defense for targets of patent aggression, the consequence for violation of the fifth paragraph is termination of GPL permissions for the distributor.

3.4.4 Note on the Microsoft/Novell Deal

The business, technical, and patent cooperation agreement between Microsoft and Novell announced in November 2006 has significantly affected the development of Draft 3. The fourth and fifth paragraphs of section 11 embody our response to the sort of threat represented by the Microsoft/Novell deal, and are designed to protect users from such deals, and prevent or deter the making of such deals.

The details of the agreements entered into between Microsoft and Novell, though subject to eventual public disclosure through the securities regulation system, have not been fully disclosed to this point.[20] It is a matter of public knowledge, however, that the arrangement calls for Novell to pay a portion of the future gross revenue of one of its divisions to Microsoft, and that (as one other feature of a complex arrangement) Microsoft has promised Novell's customers not to bring patent infringement actions against certain specific copies of Novell's SUSE "Linux"[21] Enterprise Server product for which Novell receives revenue from the user, so long as the user does not make or distribute additional copies of SLES.

The basic harm that such an agreement can do is to make the free software subject to it effectively proprietary. This result occurs to the extent that users feel compelled, by the threat of the patent, to get their copies in this way. So far, the Microsoft/Novell deal does not seem to have had this result, or at least not very much: users do not seem to be choosing Novell for this reason. But we cannot take for granted that such threats will always fail to harm the community. We take the threat seriously, and we have decided to act to block such threats, and to reduce their potential to do harm. Such deals also offer patent holders a crack through which to

[20] Lawyers employed by the Software Freedom Law Center, which is counsel to the Free Software Foundation and other relevant free software clients, were accorded limited access to the terms of the deal under a non-disclosure agreement between SFLC and Novell. The reasons for delay in the application of securities regulations requiring publication of the relevant contracts are unrelated to the deal between Microsoft and Novell.

[21] This is a GNU/Linux distribution, and is properly called SUSE GNU/Linux Enterprise Server.

split the community. Offering commercial users the chance to buy limited promises of patent safety in effect invites each of them to make a separate peace with patent aggressors, and abandon the rest of our community to its fate.

Microsoft has been restrained from patent aggression in the past by the vocal opposition of its own enterprise customers, who now also use free software systems to run critical applications. Public statements by Microsoft concerning supposed imminent patent infringement actions have spurred resistance from users Microsoft cannot afford to alienate. But if Microsoft can gain royalties from commercial customers by assuring them that *their* copies of free software have patent licenses through a deal between Microsoft and specific GNU/Linux vendors, Microsoft would then be able to pressure each user individually, and each distributor individually, to treat the software as proprietary. If enough users succumb, it might eventually gain a position to terrify noncommercial developers into abandoning the software entirely.

Preventing these harms is the goal of the new provisions of section 11. The fourth paragraph deals with the most acute danger posed by discrimination among customers, by ensuring that any party who distributes others' GPL-covered programs, and makes promises of patent safety limited to some but not all recipients of copies of those specific programs, automatically extends its promises of patent safety to cover all recipients of all copies of the covered works. This will negate part of the harm of the Microsoft/Novell deal, for GPLv3-covered software.

In addition to the present deal, however, GPLv3 must act to deter similar future arrangements, and it cannot be assumed that all future arrangements by Microsoft or other potential patent aggressors will involve procuring the conveyance of the program by the party that grants the discriminatory promises of patent safety. Therefore, we need the fifth paragraph as well, which is aimed at parties that play the Novell role in a different range of possible deals.

Drafting this paragraph was difficult because it is necessary to distinguish between pernicious agreements and other kinds of agreements which do not have an acutely harmful effect, such as patent contributions, insurances, customary cross-license promises to customers, promises incident to ordinary asset transfers, and standard settlement practices. We believe that we have achieved this, but it is hard to be sure, so we are considering making this paragraph apply only to agreements signed in the future. If we do that, companies would only need to structure future agreements in accord with the fifth paragraph, and would not face problems from past agreements that cannot be changed now. We are not yet convinced that this is necessary, and we plan to ask for more comment on the question. This is why the date-based cutoff is included in brackets.

One drawback of this cutoff date is that it would "let Novell off" from part of the response to its deal with Microsoft. However, this may not be a great drawback, because the fourth paragraph will apply to that deal. We believe it is sufficient to ensure either the deal's voluntary modification by Microsoft or its reduction to comparative harmlessness. Novell expected to gain commercial advantage from its patent deal with Microsoft; the effects of the fourth paragraph in undoing the harm of that deal will necessarily be visited upon Novell.

4 Additional Terms

Section 7 of Draft 2 set forth comprehensive rules concerning the effects of additional permissions and requirements on users' rights, and the freedom to add such terms to works conveyed under the GPL. Following the release of Draft 2, reaction to section 7 centered on subsection 7b, which enumerated categories of additional requirements that licensors could place on code added to a covered work. Many contended that any increase in developer convenience resulting from 7b was offset by what they saw as harm from a loss of uniform treatment under the GPL. Some regarded 7b as effectively authorizing variant versions of GPLv3, which, they argued, would lead to confusion and administrative difficulty.

Although some of the objections to 7b were quite general, criticism was focused on two of the 7b categories. One, clause 7b4, was designed to make compatible the additional requirement of the Affero General Public License, and similar requirements for providing source code to users interacting with modified versions remotely through a network. The other, clause 7b5, defined classes of compatible patent retaliation clauses. There was little criticism of the other specific 7b categories, 7b0–7b3, which generally codified our analysis of license compatibility issues under GPLv2.

As we explain in further detail below, Draft 3 removes the 7b4 and 7b5 categories from section 7. We have addressed some of their underlying goals through other mechanisms, and we have decided to abandon their other goals. This change made possible a considerable simplification. We have also made other improvements to section 7.

4.1 Patent Retaliation

The 7b5 clause stated two disjunctive criteria for patent retaliation provisions that could be added to the terms applicable to a covered work. In Draft 3 we no longer allow the terms of GPLv3 to be supplemented by patent retaliation clauses matching the first criterion. A patent termination condition matching the second criterion has been incorporated into the terms of GPLv3 itself through changes we have made in other parts of the license.

4.1.1 Patent Aggression

The first category identified in 7b5 consisted of termination provisions activated by the filing of non-retaliatory or non-defensive software patent lawsuits. This was not intended to enhance compatibility of existing free software licenses with the GPL, as, to our knowledge, no such license fell within the category. Its inclusion was, in part, a reaction to overbroad patent retaliation clauses that have featured in certain licenses in recent years. Our view was that retaliation clauses not restricted to litigation closely related to covered material ought to limit their scope to acts of patent aggression. We had no intention of using such clauses in our own licenses, but we believed it would be worthwhile to encourage patent retaliation enthusiasts to experiment with clauses satisfying that criterion.

Although our goal therefore was actually to discourage overbroad patent retaliation, some have objected to the first 7b5 category as being itself unreasonably broad. These critics have pointed in particular to the absence of any required subject-matter connection between the lawsuit and the licensor of the retaliation terms. It is not clear that that argument is valid, but since no one seems eager to use such patent retaliation terms, we decided to remove this option, thus clearing the way for a major simplification of section 7.

4.1.2 Accusation of Covered Material

Our inclusion of the second 7b5 category recognized the reasonableness of patent retaliation clauses activated by litigation in which the alleged infringement involved use of the licensed material. Notable examples of such retaliation clauses are found in the Apache License, version 2.0, and the Eclipse Public License.[22] We had hoped that this category would provide a

[22] Apache License, version 2.0, section 3; Eclipse Public License, version 1.0, section 7.

formal basis for achieving GPLv3 compatibility for those two free software licenses in particular, expanding the set of code available to developers in our respective license communities.

Changes made to sections 8 and 10 in Draft 3 make it unnecessary to state this criterion in section 7 in order to advance the goal of enhanced license compatibility. Section 10 now indicates that certain kinds of patent assertion are "further restrictions" on the exercise of GPL rights. Imposition of such restrictions can lead to termination of rights under section 8, including termination of patent licenses granted under the first paragraph of section 11. Section 10 states in particular that a licensee "may not initiate litigation (including a cross-claim or counterclaim in a lawsuit) alleging that any patent claim is infringed by making, using, selling, offering for sale, or importing the Program (or the contribution of any contributor)."

Read together, sections 8, 10 and 11 establish a patent termination condition for GPLv3, the scope of which is no narrower than that of the Apache/EPL variety of retaliation clause. The patent retaliation clauses in such licenses therefore do not constitute "further" restrictions on the exercise of GPLv3 rights. These provisions are compatible with Draft 3, just as they were compatible with Draft 2 through the 7b5 clause. (We consider differences in details of enforcement procedure to be irrelevant in conducting license compatibility analysis.)[23]

4.2 Public Use and the Affero GPL

The main purpose of clause 7b4 was to attain GPLv3 compatibility for the additional condition of version 1 of the Affero GPL, with a view to achieving compatibility for a future version, since version 1 was incompatible with GPLv3.[24] However, we wrote the clause broadly enough to cover a range

[23]This is not to say that other issues of compatibility of the Apache license and the EPL have been solved by GPLv3. We explain the difficulty with the Apache license below, in § 4.4. As for the EPL, there remain numerous other features in that license that are incompatible with Draft 3. We could not change that result without abandoning the strong copyleft altogether. We encourage the Eclipse Foundation to revise the EPL to permit relicensing under the GPL.

[24]Version 1 of the Affero GPL contains its own copyleft clause, worded identically to that in GPLv2, which conflicts with the copyleft clause in GPLv3. The Affero GPL permits relicensing under versions of the GPL later than version 2, but only if the later version "includes terms and conditions substantially equivalent to those of this license" (Affero GPL, version 1, section 9). The Affero license was written with the expectation that its additional requirement would be incorporated into the terms of GPLv3 itself, rather than being placeable on parts added to a covered work through the mechanism of section 7 of GPLv3.

of other possible terms that would differ from the Affero condition in their details. Draft 3 no longer pursues the more ambitious goal of allowing compatibility for a whole category of Affero-like terms. In place of 7b4, we have added a new section 13 that simply permits GPLv3-covered code to be linked with code covered by the forthcoming version 2 of the Affero GPL.

We have made this decision in the face of irreconcilable views from different parts of our community. While we had known that many commercial users of free software were opposed to the inclusion of a mandatory Affero-like requirement in the body of GPLv3 itself, we were surprised at their opposition to its availability through section 7. Free software vendors allied to these users joined in their objections, as did a number of free software developers arguing on ethical as well as practical grounds.

Some of this hostility seemed to be based on a misapprehension that Affero-like terms placed on part of a covered work would somehow extend to the whole of the work.[25] Our explanations to the contrary did little to satisfy these critics; their objections to 7b4 instead evolved into a broader indictment of the additional requirements scheme of section 7. It was clear, however, that much of the concern about 7b4 stemmed from its general formulation. Many were alarmed at the prospect of GPLv3 compatibility for numerous Affero-like licensing conditions, unpredictable in their details but potentially having significant commercial consequences.

On the other hand, many developers, otherwise sympathetic to the policy goals of the Affero GPL, have objected to the form of the additional requirement in that license. These developers were generally disappointed with our decision to allow Affero-like terms through section 7, rather than adopt a condition for GPLv3. Echoing their concerns about the Affero GPL itself, they found fault with the wording of the section 7 clause in both of the earlier drafts. We drafted 7b4 at a higher level than its Draft 1 counterpart based in part on comments from these developers. They considered the Draft 1 clause too closely tied to the Affero mechanism of preserving functioning facilities for downloading source, which they found too restrictive of the right of modification. The 7b4 rewording did not satisfy them, however. They objected to its limitation to terms requiring compliance by network transmission of source, and to the technically imprecise or inaccurate use of the phrase "same network session."

We have concluded that any redrafting of the 7b4 clause would fail to satisfy the concerns of both sets of its critics. The first group maintains

[25] It is possible that the presence of the GPLv2-derived copyleft clause in the existing Affero GPL contributed to this misunderstanding.

that GPLv3 should do nothing about the problem of public use. The second group would prefer for GPLv3 itself to have an Affero-like condition, but that seems to us too drastic. By permitting GPLv3-covered code to be linked with code covered by version 2 of the Affero GPL, the new section 13 honors our original commitment to achieving GPL compatibility for the Affero license.

Version 2 of the Affero GPL is not yet published. We will work with Affero, Inc., and with all other interested members of our community, to complete the drafting of this license following the release of Draft 3, with a goal of having a final version available by the time of our adoption of the final version of GPLv3. We hope the new Affero license will satisfy those developers who are concerned about the issue of public use of unconveyed versions but who have concerns about the narrowness of the condition in the existing Affero license.

As the second sentence in section 13 indicates, when a combined work is made by linking GPLv3-covered code with Affero-covered code, the copyleft on one part will not extend to the other part.[26] That is to say, in such combinations, the Affero requirement will apply only to the part that was brought into the combination under the Affero license. Those who receive such a combination and do not wish to use code under the Affero requirement may remove the Affero-covered portion of the combination.

Those who criticize the permission to link with code under the Affero GPL should recognize that most other free software licenses also permit such linking.

4.3 Other Changes in Section 7

Removal of the 7b4 and 7b5 clauses permits a great simplification of section 7. It no longer needs to state rules for adding additional requirements, or for how to interpret them. In reducing the list of allowed additional requirements to a set corresponding to 7b0–7b3 of Draft 2, we have improved the wording of those four categories in minor ways.

We have also removed the catchall additional requirement category of 7b6. When we rewrote section 7 for Draft 2, we included this clause as part of our effort to make section 7 a clearer and more comprehensive explanation of the treatment of additional terms under the GPL. In the past we had occasionally applied a principle, similar to what was stated in 7b6,

[26] The plan is that the additional requirement of the new Affero license will state a reciprocal limitation.

in determining that no violation had resulted from the placement of a superfluous additional condition. However, we think 7b6 contributed to the view that section 7 was unnecessarily complex and would produce unpredictable permutations of GPLv3. The inclusion of 7b6 is not necessary, as it should already be clear that neither a "precisely equivalent" term, nor a denial of permission for something not permitted by the GPL, is a "further restriction" in violation of section 10.

We have removed the final paragraph of subsection 7b, which listed several specific examples of prohibited additional requirements. The inclusion of this list was meant to be helpful, but it is not necessary, since we already specify that only the enumerated categories of supplementary conditions are permitted. The list in the final paragraph of 7b accurately presented our historical view regarding each such requirement. With at least some of the items in the list, however, there may be particular circumstances in which categorical exclusion will lead to an incorrect result. We think it is better, then, to leave this list out of the license text.

We have also clarified two clauses in section 7 that concern the consequences of placement of a non-allowed additional requirement on a work. Draft 2 introduced a clause that authorizes recipients to remove a non-allowed additional requirement that the work purports to impose. The kind of case contemplated by this clause is that of a program that explicitly purports to be licensed under the GPL along with a supplementary restriction, such as a prohibition on commercial use. The wording of the clause in Draft 2 could be read to cover other cases, however, such as the inclusion of a portion originally licensed under some other GPL-incompatible license. We have therefore revised the clause to make clear that it covers only those cases where all or part of the Program "purports to be governed by this License, supplemented by a term that is a further restriction."

Draft 3 also clarifies the clause explaining that a license document that contains a GPL-incompatible requirement but permits relicensing or conveying under the GPL will be treated as GPL-compatible only if the incompatible requirement does not survive the relicensing or conveying. Some readers found the wording of this clause in Draft 2 difficult to understand. In Draft 3 the clause is rewritten as a condition on the right to add to a covered work material governed by such a license document.

Finally, we have eliminated the requirement that those who convey a covered work maintain a central list of all the additional terms applicable to a work. Given that additional requirements now have little import except for modification of the specific code to which they apply, the central list seems unnecessary.

4.4 Statement on Apache License Compatibility

We regret that we will not achieve compatibility of the Apache License, Version 2.0, with GPLv3, despite what we had previously promised.

Our consideration of Apache/GPL license compatibility has focused on the patent termination clause in the Apache license. As we explained above in § 4.1, this clause is compatible with Draft 3 because it is not a "further restriction." However, we overlooked another provision in the current Apache license that, on its face, is incompatible with the GPL. Under section 9 of the Apache license, downstream redistributors must agree to indemnify upstream licensors under certain conditions.[27]

Although we have studied section 9 of the Apache license at some length, we fail to understand its precise purpose or effect. On one interpretation, the indemnification clause should never have any consequence, since, one might argue, the liability incurred by an upstream licensor "by reason of" a downstream redistributor's acceptance of warranty or liability ought always to be zero. However, we think this cannot have been the intent of the drafters of the Apache license. Terms in free software licenses must be assumed to have real meaning. Because the GPL gives redistributors an unconditional right to offer warranty protection,[28] and because the terms of the Apache license appear to survive incorporation of Apache-covered code into a GPL-covered work, section 9 of the Apache license would give rise to an impermissible further restriction on GPL rights.

We apologize to the Apache community for having previously overlooked the significance of this issue. We look forward to further discussions with the Apache Foundation in the hope of achieving compatibility in the future.

4.5 Statement on Artistic License Compatibility

The Artistic License 2.0, as published by the Perl Foundation in 2006, is, in our judgment, compatible both with GPLv2 and GPLv3. The patent termi-

[27] Apache License, version 2.0, section 9:

> While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

[28] See Draft 3, section 4, second paragraph.

nation cases contemplated by section 12 of the Artistic License are a subset of the termination cases under the third paragraph of section 10 of Draft 3. Moreover, even if the patent termination clause in the Artistic License can be considered a "further restriction" on GPLv2 rights, the Artistic License permits relicensing under GPLv2 and GPLv3 through its clause 4(c)(ii). As we read the Artistic License, such relicensing would, by itself, extinguish any additional restrictions that might have been placed upstream by the Artistic licensor.

5 Termination

We have made two substantive changes to section 8. First, we have clarified that patent rights granted under the GPL are among the rights that a copyright holder may terminate under section 8. Therefore, a contributor who grants a patent license under the first paragraph of section 11 may terminate that patent license, just as that contributor may terminate copyright rights, to a downstream recipient who has violated the license. We think that this is a reasonable result, and was already implicit in the wording of the termination provision in our earlier drafts. Moreover, this clarification should encourage patent holders to make contributions to GPL-covered programs.

Second, we have modified the termination procedure by providing a limited opportunity to cure license violations, an improvement that was requested by many different members of our community. If a licensee has committed a first-time violation of the GPL with respect to a given copyright holder, but the licensee cures the violation within 30 days following receipt of notice of the violation, then any of the licensee's GPL rights that have been terminated by the copyright holder are "automatically reinstated." The addition of the cure opportunity achieves a better balance than our earlier section 8 drafts between facilitating enforcement of the license and protecting inadvertent violators against unfair results.

Part II

Annotated Markup of Third Discussion Draft

GNU General Public License

Discussion Draft ~~2~~ **3** of Version 3, ~~27 July~~ **28 March** ~~2006~~ **2007**

THIS IS A DRAFT, NOT A PUBLISHED VERSION OF THE GNU GENERAL PUBLIC LICENSE.

Copyright © ~~2006~~ **2007** Free Software Foundation, Inc. **(http://fsf.org)**
51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA
Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

Preamble

The GNU General Public License is a free, copyleft license for software and other kinds of works.[1]

The licenses for most software **and other practical works** are designed to take away your freedom to share and change ~~it~~ **the works**. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software—to make sure the software is free for all its users. We, the Free Software Foundation, use the GNU General Public License for most of our software; it applies also to any other program whose authors commit to using it. You can apply it to your programs, 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 requirements that forbid anyone to deny you these rights or to ask you to surrender the rights. Therefore,

[1] This sentence and the reference to "other practical works" in the following sentence make clear that the GPL can be used for non-software works.

you have certain responsibilities 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~~ **pass on to** the recipients ~~all~~ the **same** ~~rights~~ **freedoms** that you ~~have~~ **received**.[2] 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.

Developers that use the GNU GPL protect your rights with two steps: (1) assert copyright on the software, and (2) offer you this License which gives you legal permission to copy, distribute and/or modify the software.

For the developers' and authors' protection, the GPL clearly explains that there is no warranty for this free software. For both users' and authors' sake, the GPL requires that modified versions be marked as changed, so that their problems will not be associated erroneously with the ~~original version~~ **previous versions**.[3]

Some ~~computers~~ **devices**[4] are designed to deny users access to install or run modified versions of the software inside them**, although the manufacturer can do so**. This is fundamentally incompatible with the purpose of the GPL, which is to protect users' freedom to change the software **where changes are possible**.[5] **The systematic pattern of such abuse occurs in the area of products for individuals to use, which is precisely where it is most unacceptable.** Therefore, ~~the GPL ensures that the software it covers will not be restricted in this way~~ **we have designed this version of the GPL to prohibit the practice for those products**.[6] **If such problems arise substantially in other domains, we stand ready to extend this provision to those domains in future versions of the GPL, as needed to protect the freedom of users.**

Finally, every program is threatened constantly by software patents. States should not allow patents to restrict development and use of software

[2]We improved the wording of this sentence, which now describes the nature of the copyleft requirement more clearly.

[3]"Previous" is a clearer term in this context than "original,"and there may be more than one previous version.

[4]It is becoming increasingly common for free software to be installed in embedded computing devices that have technical restrictions on modification of that software, thwarting the expectations of its copyright holders. These are devices that typically are not thought as computers by their users.

[5]See section 6, fifth paragraph ("But this requirement does not apply if neither you nor any third party retains the ability to install modified object code on the User Product"); Part I, § 1.5.

[6]See section 6 (requirement to provide Installation Information); Part I, § 1.

on general-purpose computers, but in places where they do, we wish to avoid the special danger that ~~redistributors of~~ **patents applied to** a free program ~~will individually obtain patent licenses, in effect making the program~~ **could make it effectively** proprietary.[7] To prevent this, the GPL assures that patents cannot be used to render the program non-free.

The precise terms and conditions for copying, distribution and modification follow.[8]

TERMS AND CONDITIONS

0. Definitions.

"This License" refers to version 3 of the GNU General Public License.[9]

"Copyright" also means copyright-like laws that apply to other kinds of works, such as semiconductor masks.[10]

~~In this License, each licensee is addressed as "you," while "the~~ **"The** Program" refers to any **copyrightable** work ~~of authorship~~ licensed under this License.[11] **Each licensee is addressed as "you." "Licensees" and "recipients" may be individuals or organizations.**[12]

~~A "modified" work includes, without limitation, versions in which material has been translated or added. A work "based on"another work means any modified version, formation of which requires permission under applicable copyright law.~~ **To "modify" a work means to copy from or adapt all or part of the work in a fashion requiring copyright permission, other than the making of a verbatim copy. The resulting work is called a "modified version" of the earlier work or a work "based**

[7] We revised the last part of this sentence to reflect the more comprehensive approach to patent policy we have taken in GPLv3.

[8] We decided to restore this sentence from Draft 1, also present in GPLv2.

[9] References to "this License" in the body of GPLv3 refer specifically to GPLv3 and not also to other versions of the GPL.

[10] For example, local law, such as 17 U.S.C. §§ 901 *et seq.* in the United States, may provide copyright-like rights to owners of semiconductor mask works. If such an owner wishes to license the mask work under the GPL, references in the GPL to "copyright" shall be understood to refer to the analogous law.

[11] Given the broadened definition of "copyright," the use of "copyrightable work" is more appropriate than "work of authorship."

[12] It should be obvious that, under local law, licensees, like licensors, may be organizations, such as business entities, universities, government authorities, and foundations. We have obliged requests that we state this point explicitly.

on" the earlier work.[13] A "covered work" means either the unmodified Program or a work based on the Program.

A "contributor" is a party who licenses under this License a work on which the Program is based. Such a work is called the party's "contribution."[14]

To "propagate" a work means ~~doing~~ **to do (or cause others to do)**[15] anything with it that requires permission under applicable copyright law, except executing it on a computer~~,~~ or making modifications that you do not share. Propagation includes copying, distribution (with or without modification), making available to the public, and in some countries other activities as well. To "convey" a work means any kind of propagation that enables other parties to make or receive copies, excluding sublicensing. **Mere interaction with a user through a computer network, with no transfer of a copy, is not conveying.**[16]

A party's "essential patent claims" in a work are all patent claims ~~that the party can give permission to practice~~ **owned or controlled by the party**, whether already acquired or ~~to be~~ **hereafter** acquired, that would be infringed by **some manner, permitted by this License, of** making, using, or selling the work**, but do not include claims that would be infringed only as a consequence of further modification of the work**. **For purposes of this definition, "control" includes the right to grant sublicenses in a manner consistent with the requirements of this License.**[17]

[13]We have made further improvements to the important definitions of "modify" and "based on," providing a complete definition of "modify" that refers to basic copyright rights, and using this definition of "modify" to define "modified version of" and "work based on," now presented as synonyms.

[14]See Part I, § 3.1.

[15]The parenthetical expression explicitly incorporates concepts of secondary copyright liability into the definition of propagation.

[16]This sentence states what is already inherent in the definition of "convey." If no transfer of copyrightable material occurs or is enabled, no conveying has taken place; therefore, network interaction per se is not conveying. On the other hand, if network interaction results in the transfer of a copy, conveying has occurred. This is not restricted to cases where software is obtained from a network server for later use in some other context. For example, if a program run on a network server transmits code for execution in a web browser, and that code is a modified version of a GPLv3-covered work, then the server operator must comply with the requirements of section 5 of GPLv3. We note also that there may be circumstances in which the transmitted code and the server-side code are properly regarded as one work under copyright law.

[17]See Part I, § 3.3.1.

1. Source Code.

The "source code" for a work means the preferred form of the work for making modifications to it. "Object code" means any non-source ~~version~~ **form**[18] of a work.

A "Standard Interface" means an interface that either is an official standard defined by a recognized standards body, or, in the case of interfaces specified for a particular programming language, one that is widely used among developers working in that language.[19]

The "System Libraries" of an executable work include ~~every subunit such~~ **anything, other than the work as a whole,** that (a) ~~the identical subunit~~ is normally included ~~as an adjunct~~ in the distribution of ~~either~~ a ~~major essential component (kernel, window system, and so on) of the specific operating system (if any) on which the object code runs, or a compiler used to produce the object code, or an object code interpreter used to run it~~ **Major Component, but which is not part of that Major Component,** and (b) ~~the subunit (aside from possible incidental extensions)~~ serves only to enable use of the work with that ~~system component or compiler or interpreter~~ **Major Component**, or to implement a ~~widely used or standard interface~~ **Standard Interface** for which an implementation is available to the public in source code form. **A "Major Component", in this context, means a major essential component (kernel, window system, and so on) of the specific operating system (if any) on which the executable work runs, or a compiler used to produce the work, or an object code interpreter used to run it.**[20]

[18] "Version" can be read to mean a work based on another work, or a work on which another work is based. (Cf. the definition of "modified version" in section 0.) "Form" is a more appropriate term here; it suggests one of a set of possible representations of what is the same work for copyright purposes, and it is more consistent with the usage of "form" elsewhere in the license.

[19] This definition replaces the reference to "a widely used or standard interface" in the Draft 2 version of the System Libraries definition. We were concerned that, at least under a highly literal reading, the previous wording was not clearly applicable to relatively unpopular programming languages that are not "widely used" in an absolute sense or that have library interfaces that are not "standard" in an official sense.

[20] We have made some changes to the wording of the System Libraries definition to make it simpler and clearer, without changing its scope or policy. The terms "subunit" and "adjunct," which some readers found confusing, have been removed, and a definition of "Major Component" has been factored out. To achieve what was accomplished by "subunit" and "adjunct," the new definition indicates that a work cannot be its own System Library, and that a System Library cannot be a part of the Major Component

The "Corresponding Source" for a work in object code form means all the source code needed to generate, install, and (for an executable work) run the object code and to modify the work, ~~except its~~ **including scripts to control those activities. However, it does not include the work's** System Libraries, ~~and except~~ **or** general-purpose tools or generally available free programs which are used unmodified in performing those activities but which are not part of the work. For example, Corresponding Source includes ~~scripts used to control those activities,~~ interface definition files associated with ~~the program~~ source files **for the work**, and the source code for shared libraries and dynamically linked subprograms that the work is specifically designed to require, such as by ~~complex~~ **intimate** data communication or control flow between those subprograms and other parts of the work.[21]

~~The Corresponding Source also includes any encryption or authorization keys necessary to install and/or execute modified versions from source code in the recommended or principal context of use, such that they can implement all the same functionality in the same range of circumstances. (For instance, if the work is a DVD player and can play certain DVDs, it must be possible for modified versions to play those DVDs. If the work communicates with an online service, it must be possible for modified versions to communicate with the same online service in the same way such that the service cannot distinguish.) A key need not be included in cases where use of the work normally implies the user already has the key and can read and copy it, as in privacy applications where users generate their own keys. However, the fact that a key is generated based on the object code of the work or is present in hardware that limits its use does not alter the requirement to include it in the Corresponding Source.~~[22]

~~The Corresponding Source may include portions which do not formally state this License as their license, but qualify under section 7 for inclusion in a work under this License.~~[23]

---

with which it is normally included.

[21] We have made minor clarifications to this definition. Our restoration of "intimate" in place of the Draft 2 substitution "complex" followed from further public discussion of the Corresponding Source definition, in which it became clear that "complex" in the context of data communication suggested interpretations quite different from what we had intended. "Intimate" is the most useful term we know to describe the kind of convoluted interaction and deep knowledge that suggests that one part is specifically designed to require another part.

[22] See section 6; Part I, § 1.1.

[23] This statement remains true, but it is a detail that is not necessary to specify in the Corresponding Source definition; we have removed it as part of our efforts to simplify the definition. We think that the underlying observation is well-understood (that a GPL-

The Corresponding Source need not include anything that users can regenerate automatically from other parts of the Corresponding Source.

The Corresponding Source for a work in source code form is that same work.[24]

2. Basic Permissions.

All rights granted under this License are granted for the term of copyright on the Program, and are irrevocable provided the stated conditions are met. This License explicitly affirms your unlimited permission to run the unmodified Program. The output from running ~~it~~ **a covered work**[25] is covered by this License only if the output, given its content, constitutes a covered work. This License acknowledges your rights of ~~“~~fair use~~”~~ or other equivalent, as provided by copyright law.

~~This License permits you to make and run privately modified versions of the Program, or have others make and run them on your behalf. However, this permission terminates, as to all such versions, if you bring suit against anyone for patent infringement of any of your essential patent claims in any such version, for making, using, selling or otherwise conveying a work based on the Program in compliance with this License.~~[26]

Propagation of covered works ~~other than conveying~~ **that you do not convey, and making modified versions of the Program that you do not convey,** ~~is~~ **are** permitted without ~~limitation~~ **conditions, so long as your license otherwise remains in force**.[27] **Conveying is permitted**

---

licensed work, and therefore the Corresponding Source of such a work, may include parts that are formally licensed under some other license).

[24] Because GPLv3 now has requirements referring to Corresponding Source outside of the object code conveying requirements of section 6 (see section 10, second paragraph, and section 11, third paragraph), it has become necessary to define what “Corresponding Source” means for a work in source code form. Our definition states that it is nothing more than that work itself. It is important to note that section 11, paragraph 3 refers to a work that is conveyed, and section 10, paragraph 2 refers to a kind of automatic counterpart to conveying achieved as the result of a transaction. The permissions of section 5 imply that if one distributes source code, one can never be required to provide more than what is distributed. One always has the right to modify a source code work by deleting any part of it, and there can be no requirement that free software source code be a whole functioning program.

[25] The observation applies to the output of any covered work, of course, not just the unmodified Program.

[26] See Part I, § 3.2. Our decision to remove this paragraph has no bearing on our understanding of the right to have modifications made on one’s behalf.

[27] Having removed the patent retaliation clause from this section, we now characterize

under the conditions stated below. Sublicensing is not allowed; section 10 makes it unnecessary. ~~Conveying is permitted under the conditions stated below.~~

3. No Denying Users' Rights through Technical Measures.

~~Regardless of any other provision of this License, no permission is given for modes of conveying that deny users that run covered works the full exercise of the legal rights granted by this License.~~[28]

No covered work ~~constitutes~~ **shall be deemed** part of an effective technological ~~"protection"~~ measure under ~~section 1201 of Title 17 of the United States Code~~ **any applicable law fulfilling obligations under article 11 of the WIPO copyright treaty adopted on 20 December 1996, or similar laws prohibiting or restricting circumvention of such measures**.[29]

When you convey a covered work, you waive any legal power to forbid circumvention of technical measures ~~that include use of~~ **to the extent such circumvention is effected by exercising rights under this License with respect to** the covered work, and you disclaim any intention to limit operation or modification of the work as a means of enforcing**, against the work's users, your or third parties'** ~~the~~ legal rights ~~of third parties against the work's users~~ **to forbid circumvention of technical measures**.[30]

4.[1] **Conveying** Verbatim ~~Copying~~ **Copies**.[31]

You may ~~copy and~~ convey 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; keep intact all ~~license~~ notices **stating that this License and any non-permissive**

the right of private (that is, unconveyed) modification as coextensive with the right of private propagation. These rights differ from the right to run the unmodified Program. The GPL does not purport to control the right to run the Program in any way (cf. section 9), while the right to make internal or private propagation and modification are perpetual so long as one's rights under the GPL have not been terminated under section 8.

[28]See Part I, § 1.7.

[29]See Part I, § 2.

[30]See Part I, § 2.

[31]This section contains conditions on conveying, not on all propagation. See n. 27.

terms added in accord with section 7 apply to the code;[32] ~~and~~ **keep intact all** notices of the absence of any warranty; and give all recipients~~,~~ ~~along with the Program,~~ a copy of this License **along with the Program** ~~and the central list (if any) required by section 7~~.[33] ~~The recipients of these copies will possess all the rights granted by this License (with any added terms under section 7).~~[34]

You may charge any price or no price for each copy that you convey, and you may offer support or warranty protection for a fee.

5.[2] Conveying Modified Source Versions.

You may ~~copy and~~[35] convey a work based on the Program, or the modifications to produce it from the Program, in the form of source code under the terms of section 4 above, provided that you also meet all of these conditions:

a) The ~~modified~~ work[36] must carry prominent notices stating that you ~~changed the work~~ **modified it,** and ~~the date of any change~~ **giving a relevant date**.[37]

b) The work must carry prominent notices stating that it is released under this License and any conditions added under section 7. This requirement modifies the requirement in section 4 to "keep intact all notices".[38]

~~b~~ **c**) You must license the entire work, as a whole, under this License to anyone who comes into possession of a copy. This License ~~must~~ **will therefore**[39] apply, unmodified except as permitted by section 7 ~~below~~,

[32] We have replaced the term "license notices" with a more precise description of the notices that must be kept intact. As section 7 makes clear, there is no requirement to keep intact notices of additional permission.

[33] We have removed the central list requirement from section 7. See Part I, § 4.3.

[34] This statement concerning the rights received by a downstream licensee remains true, but it is not necessary to state in a section describing the requirements of the upstream licensee conveying an unmodified copy.

[35] See n. 31.

[36] For consistency in terminology in this section, we simply refer to "the work," which is understood here to mean a modified version of the Program.

[37] We have improved the wording of this clause for clarity.

[38] For a work that has been modified, this clause is a necessary supplement to the requirement in section 4 to keep intact existing licensing notices.

[39] The substituted phrasing here should make clearer that the second sentence follows necessarily from the first.

to the whole of the work, and all its parts, regardless of how they are packaged. This License gives no permission to license the work in any other way, but it does not invalidate such permission if you have separately received it.

~~e~~ **d**) If the ~~modified~~[40] work has interactive user interfaces, each must include a convenient feature that displays an appropriate copyright notice, and tells the user that there is no warranty for the ~~program~~ **work**[41] (~~or that~~ **unless** you provide a warranty),[42] that ~~users~~ **licensees**[43] may convey the ~~modified~~[44] work under this License, and how to view a copy of this License ~~together with the central list (if any) of other terms in accord with section 7~~.[45] Specifically, if the interface presents a list of user commands or options, such as a menu, a command to display this information must be prominent in the list; otherwise, the ~~modified~~[46] work must display this information at startup. However, if the Program has interactive interfaces that do not comply with this subsection, your ~~modified~~ work need not make them comply.

~~To the extent that identifiable sections of the modified work, added by you, 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 convey them as separate works, not specifically for use in combination with the Program.~~[47]

A compilation of a covered work with other separate and independent works, which are not by their nature extensions of the covered work, in or on a volume of a storage or distribution medium, is called an "aggregate" if the compilation and its resulting copyright are not used to limit the access or legal rights of the compilation's users beyond what the individual works permit. Inclusion of a covered work in an aggregate does not cause this

[40] See n. 36.

[41] Using "program" here may be more confusing because of our use of "Program" as a term of art meaning the unmodified, received version of the work.

[42] There should be no requirement that the interactive interface disclose the fact that a warranty is provided, which should already be known to the user.

[43] See n. 12.

[44] See n. 36.

[45] See n. 33.

[46] See n. 36.

[47] This paragraph was revised for clarity in Draft 2, but some readers have continued to find it difficult to interpret. We therefore have decided to remove it. The paragraph is not strictly necessary; it was intended to be helpful to licensees, stating a fact that is inherent in other provisions of the GPL.

License to apply to the other parts of the aggregate.

6.[3] Conveying Non-Source Forms.

You may ~~copy and~~[48] convey a covered work in object code form under the terms of sections 4 and 5, provided that you also convey the machine-readable Corresponding Source under the terms of this License, in one of these ways:

a) Convey the object code in**, or embodied in,**[49] a physical product (including a physical distribution medium), accompanied by the Corresponding Source fixed on a durable physical medium customarily used for software interchange.

b) Convey the object code in**, or embodied in,** a physical product (including a physical distribution medium), accompanied by a written offer, valid for at least three years and valid for as long as you offer spare parts or customer support for that product model, **either (1)** to give ~~any third party~~ **anyone who possesses the object code**[50] a copy of the Corresponding Source for all the software in the product that is covered by this License, on a durable physical medium customarily used for software interchange, for a price no more than your reasonable cost of physically performing this conveying of source~~.~~**, or (2)**

~~[b1) Convey the object code in a physical product (including a physical distribution medium), accompanied by a written offer, valid for at least three years and valid for as long as you offer spare parts or customer support for that product model,~~ to provide access to copy the Corresponding Source from a network server at no charge.~~]~~[51]

---

[48] See n. 31.

[49] We added "embodied in" particularly to make clear that options 6a and 6b are appropriate for conveying of object code in the form of a silicon chip, the implementation of which results ultimately from synthesis of GPLv3-covered source code written in a hardware description language.

[50] This is a change in wording that places 6b(1) in line with the general policy of section 6 to make possession of object code normative in giving rise to rights to receive Corresponding Source. As 6c indicates, a party who conveys object code under 6b1 cannot limit the set of recipients who might make claims for receipt of Corresponding Source, but they must actually be recipients of object code and therefore GPLv3 licensees.

[51] In Draft 3 we have adopted the bracketed option 6b1 that was introduced in Draft 2, and we have made it a sub-option of 6b.

c) Convey individual copies of the object code with a copy of the written offer to provide the Corresponding Source. This alternative is allowed only occasionally and noncommercially, and only if you received the object code with such an offer, in accord with subsection 6b ~~or 6b1~~.

d) Convey the object code by offering access from a designated place **(gratis or for a charge)**, and offer equivalent access to the Corresponding Source in the same way through the same place at no ~~extra~~ **further** charge.[52] You need not require recipients to copy the Corresponding Source along with the object code.

~~[~~If the place to copy the object code is a network server, the Corresponding Source may be on a different server **(operated by you or a third party)** that supports equivalent copying facilities, ~~provided you have explicitly arranged with the operator of that server to keep the Corresponding Source available for as long as needed to satisfy these requirements, and~~ provided you maintain clear directions next to the object code saying where to find the Corresponding Source.~~]~~ **Regardless of what server hosts the Corresponding Source, you remain obligated to ensure that it is available for as long as needed to satisfy these requirements.**[53]

e) Convey the object code using peer-to-peer transmission**,** provided you ~~know that, and~~[54] inform other peers where~~,~~ the object code and Corresponding Source of the work are being offered to the general public at no charge under subsection 6d.

[52] We improved the wording of this sentence to provide a clearer expression of the intended policy. Under the 6d option, you may charge for the conveyed object code. Those who pay to obtain the object code must be given equivalent and gratis access to obtain the Corresponding Source. (If you convey the object code to them gratis, you must likewise make the Corresponding Source available to them without charge.) Those who do not obtain the object code from you, perhaps because they choose not to pay the fee you charge, are outside the scope of the provision; you need not give them any kind of access to the Corresponding Source.

[53] The bracketed text providing guidance on the network server option was generally considered useful by those who commented on it, and we have therefore incorporated it into 6d. We have made revisions to the wording of this text to clarify further that the server hosting the Corresponding Source may be operated by a third party, and that no explicit arrangement with that third party is necessary. However, if the third party ceases to make the Corresponding Source available as required, the party conveying the object code must ensure that the Corresponding Source is made available in some other way that complies with the requirements of 6d.

[54] Informing the peers is clearly enough; what seemed to be an additional knowledge requirement was superfluous wording.

~~The Corresponding Source conveyed in accord with this section must be in a format that is publicly documented, with an implementation available to the public in source code form, and must require no special password or key for unpacking, reading or copying.~~[55]

A separable portion of the object code, whose source code is excluded from the Corresponding Source as a System Library, need not be included in conveying the object code work.

A "User Product" is either (1) a "consumer product", which means any tangible personal property which is normally used for personal, family, or household purposes, or (2) anything designed or sold for incorporation into a dwelling. [In cases of doubt concerning whether an item is a "consumer product", the interpretation of the Magnuson-Moss Warranty Act, 15 U.S.C. § 2301 *et seq.*, shall provide the basis for interpretation, regardless of the choice of law determination for this License as a whole.][56]

"Installation Information" for a User Product means any methods, procedures, authorization keys, or other information required to install and execute modified versions of a covered work in that User Product from a modified version of its Corresponding Source. The information must suffice to ensure that the continued functioning of the modified object code is in no case prevented or interfered with solely because modification has been made.[57]

If you convey an object code work under this section in, or with, or specifically for use in, a User Product, and the conveying occurs as part of a transaction in which the right of possession and use of the User Product is transferred to the recipient in perpetuity or for a fixed term (regardless of how the transaction is characterized),[58] **the Corresponding Source conveyed under this section must be accompanied by the Installation Information.**[59] **But this requirement does not apply if neither you nor any third party retains the ability to install modified object code on the User Product (for example, the work has been installed in ROM).**[60]

[55] We moved this requirement to the end of section 6, generalizing it to cover also the provision of Installation Information.

[56] See Part I, § 1.2.

[57] See Part I, § 1.3.

[58] See Part I, § 1.4.

[59] See Part I, § 1.

[60] See Part I, § 1.5.

The requirement to provide Installation Information does not include a requirement to continue to provide support service, warranty, or updates for a work that has been modified or installed by the recipient. Network access may be denied when the modification itself materially and adversely affects the operation of the network or violates the rules and protocols for communication across the network.[61]

Corresponding Source conveyed, and Installation Information provided, in accord with this section must be in a format that is publicly documented, with an implementation available to the public in source code form, and must require no special password or key for unpacking, reading or copying.[62]

7. Additional Terms.

~~You may have received the Program, or parts of it, under terms that supplement the terms of this License. These additional terms may include additional permissions, as provided in subsection 7a, and additional requirements, as provided in subsection 7b. When you convey copies of a covered work, unless the work also permits use under a previous version of this License, it must list, in one central place in the source code, the complete set of additional terms governing all or part of the work.~~[63]

~~a. Additional Permissions.~~

"Additional permissions**" are terms that supplement the terms of this License by** ~~make~~ **making** exceptions from one or more of ~~the requirements of this License~~ **its conditions**.[64] ~~A license document containing a clause that permits relicensing or conveying under this License shall be treated as a list of additional permissions, provided that the license document makes clear that no requirement in it survives such relicensing or conveying.~~[65]

~~Any additional~~ **Additional** permissions that are applicable to the entire Program shall be treated as though they were included in this License,

[61] See Part I, § 1.6.

[62] See n. 55.

[63] See Part I, § 4.3.

[64] This sentence incorporates some of the wording of the first sentence of section 7 in Draft 2.

[65] See n. 81; Part I, § 4.3.

~~as exceptions to its conditions,~~ to the extent that they are valid under applicable law. If additional permissions apply only to part of the Program, that part may be used separately under those permissions, but the entire Program remains governed by this License without regard to the additional ~~terms~~ **permissions**.

~~b. Additional Requirements.~~

~~Additional requirements are terms that further constrain use, modification or propagation of covered works. This License affects only the procedure for enforcing additional requirements, and does not assert that they can be successfully enforced by the copyright holder. Only these kinds of additional requirements are allowed by this License:~~

~~0) terms that require preservation of specified reasonable legal notices or author attributions;~~[66] ~~or~~

~~1) terms that require that the origin of the material they cover not be misrepresented, or that modified versions of that material be marked in specific reasonable ways as different from the original version;~~[67] ~~or~~

~~2) warranty or liability disclaimers that differ from the disclaimers in this License;~~[68] ~~or~~

~~3) terms that prohibit or limit the use for publicity purposes of specified names of licensors or authors, or that require that certain specified trade names, trademarks, or service marks not be used for publicity purposes without express permission, other than in ways that are fair use under applicable trademark law;~~[69] ~~or~~

~~4) terms that require, if a modified version of the material they cover is a work intended to interact with users through a computer network, that those users be able to obtain copies of the Corresponding Source of the work through the same network session;~~[70] ~~or~~

~~5) terms that wholly or partially terminate, or allow termination of, permission for use of the material they cover, for a user who files a~~

[66]See n. 77.
[67]See n. 78.
[68]See n. 76.
[69]See n. 79.
[70]See Part I, § 4.2. Cf. Draft 3, section 13.

~~software patent lawsuit (that is, a lawsuit alleging that some software infringes a patent) not filed in retaliation or defense against the earlier filing of another software patent lawsuit, or in which the allegedly infringing software includes some of the covered material, possibly in combination with other software;~~[71] ~~or~~

~~6) terms that are precisely equivalent in type and extent to a requirement expressly stated in this License, or that deny permission for activities that are clearly not permitted, expressly or otherwise, by this License.~~[72]

~~All other additional requirements, including attorney's fees provisions, choice of law, forum, and venue clauses, arbitration clauses, mandatory contractual acceptance clauses, requirements regarding changes to the name of the work, and terms that require that conveyed copies be governed by a license other than this License, are prohibited.~~[73]

~~c. Terms Added or Removed by You.~~

When you convey a copy of a covered work, you may at your option remove any additional permissions from that copy, or from any part of it. (~~Some additional~~ **Additional** permissions **may be written to** require their own removal in certain cases when you modify the work.) **You may place additional permissions on material, added by you to a covered work, for which you have or can give appropriate copyright permission.**[74]

Notwithstanding any other provision of this License, you may supplement the terms of this License with terms effective under, or drafted for compatibility with, local law:[75]

a. disclaiming warranty or limiting liability differently from the terms of section 15 of this License;[76] **or**

b. requiring preservation of specified reasonable legal notices or author attributions in source or object code forms of material added by you to a covered work;[77]**or**

[71] See Part I, § 4.1. Cf. Draft 3, section 10, third paragraph.
[72] See Part I, § 4.3.
[73] See Part I, § 4.3.
[74] This relocates part of what was the first sentence of the second-to-last paragraph of section 7 in Draft 2.
[75] See Part I, § 4.3.
[76] This corresponds to clause 7b2 of Draft 2.
[77] This corresponds to clause 7b0 of Draft 2.

c. **prohibiting misrepresentation of the origin of material added by you to a covered work, or requiring that modified versions of such material be marked in reasonable ways as different from the original version;**[78] **or**

d. **limiting the use for publicity purposes of specified names of licensors or authors, or of specified trade names, trademarks, or service marks, to the extent otherwise permitted by law.**[79]

~~Additional requirements are allowed only as stated in subsection 7b.~~ **All other non-permissive additional terms are considered "further restrictions" within the meaning of section 10.** If the Program as you received it**, or any part of it,** purports to ~~impose any other additional requirement~~ **be governed by this License, supplemented by a term that is a further restriction**, you may remove that ~~requirement~~ **term**.[80] **If a license document contains a further restriction but permits relicensing or conveying under this License, you may add to a covered work material governed by the terms of that license document, provided that the further restriction does not survive such relicensing or conveying.**[81]

~~You may place additional permissions, or additional requirements as allowed by subsection 7b, on material, added by you to a covered work, for which you have or can give appropriate copyright permission.~~[82] ~~Adding requirements not allowed by subsection 7b is a violation of this License that may lead to termination of your rights under section 8.~~[83]

If you add terms to a covered work in accord~~ance~~ with this section, you must place, in the relevant source files, a statement of the additional terms that apply to those files, or a notice indicating where to find the applicable terms.

8.[4] Termination.

You may not propagate or modify ~~the Program~~ **a covered work** except as expressly provided under this License. Any attempt otherwise to propagate

[78] This corresponds to clause 7b1 of Draft 2.

[79] This corresponds to clause 7b3 of Draft 2.

[80] See Part I, § 4.3.

[81] See Part I, § 4.3.

[82] See n. 74.

[83] The point made by this sentence is now made in the first sentence of the second-to-last paragraph of section 7 in Draft 3.

or modify ~~the Program~~ **it** is void.[84] If you violate this License, any copyright holder may put you on notice by notifying you of the violation, by any reasonable means, provided 60 days have not elapsed since the ~~last~~ **most recent** violation.[85] Having put you on notice, the copyright holder may**,** ~~then terminate your license~~ at any time**, terminate the rights (including any patent rights) that the copyright holder has granted to you under this License**.[86]

However, if this is your first violation of this License with respect to a given copyright holder, and you cure the violation within 30 days following your receipt of the notice, then your license is automatically reinstated.[87]

~~However,~~ **In the event that your rights are terminated under this section,** parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as they remain in full compliance.

9.[5] Acceptance Not Required for Having Copies.

You are not required to accept this License in order to receive or run a copy of the Program. Ancillary propagation of a covered work occurring solely as a consequence of using peer-to-peer transmission to receive a copy likewise does not require acceptance. However, nothing ~~else~~ **other than this License** grants you permission to propagate or modify ~~the Program or~~ any covered ~~works~~ **work**. These actions infringe copyright if you do not accept this License. Therefore, by modifying or propagating ~~the Program (or any~~ **a** covered work~~)~~, you indicate your acceptance of this License to do so~~, and all its terms and conditions~~.[88]

[84]The termination provision applies to works based on the Program as well as to the Program.

[85]"Most recent" is clearer than "last."

[86]See Part I, § 5.

[87]See Part I, § 5.

[88]We made minor improvements to the wording of this section.

10.[6] Automatic Licensing of Downstream ~~Users~~ **Recipients**.[89]

Each time you convey a covered work, the recipient automatically receives a license from the original licensors, to run, modify and propagate that work, subject to this License~~, including any additional terms introduced through section 7.~~[90] ~~You may not impose any further restrictions on the recipients' exercise of the rights thus granted or affirmed, except in the limited ways permitted by section 7. Therefore, you may not impose a license fee, royalty, or other charge for exercise of rights granted under this License.~~[91] You are not responsible for enforcing compliance by third parties ~~to~~ **with** this License.

An "entity transaction" is a transaction transferring control of an organization, or substantially all assets of one, or subdividing an organization, or merging organizations. If propagation **of a covered work** results from ~~a transaction transferring control of an organization~~ **an entity transaction**, each party to that transaction who receives a copy of the work also receives ~~a license~~ **whatever licenses to the work the party's predecessor in interest had or could give under the previous paragraph, plus** ~~and~~ a right to possession of the Corresponding Source of the work from the ~~party's~~ predecessor in interest.[92]

You may not impose any further restrictions on the exercise of the rights granted or affirmed under this License. For example, you may not impose a license fee, royalty, or other charge for exercise of rights granted under this License, and you may not initiate

[89] See n. 12.

[90] The reference to additional terms is a correct detail, but it is unnecessary to call it out, given that any variance from the terms of GPLv3 owing to the presence of additional terms arises from the provisions of section 7 itself.

[91] During the course of the GPLv3 discussion process, the prohibition on imposition of further restrictions has emerged as one of the most significant sources of specific policy and authority under the license. We think that its inclusion inside the paragraph that sets forth the distinct automatic licensing provision obscures its importance and limits its effect, and we have therefore moved it to an independent paragraph at the end of section 10.

[92] This provision, first introduced in Draft 2, establishes a default background rule to reduce diligence costs for those who negotiate corporate control transactions and similar agreements by automatically causing any propagation resulting from such transactions to have the same effect as though conveying had occurred under sections 4–6. In Draft 3 we have broadened the rule by defining a category of "entity transactions" that includes, for example, transfers of organizational assets. We have also clarified what the "license" is that is received by the successor in interest.

litigation (including a cross-claim or counterclaim in a lawsuit) alleging that any patent claim is infringed by making, using, selling, offering for sale, or importing the Program (or the contribution of any contributor).[93]

11. Patents.

~~You receive the Program with a covenant from each author and conveyor of the Program, and of any material, conveyed under this License, on which the Program is based, that the covenanting party will not assert (or cause others to assert) any of the party's essential patent claims in the material that the party conveyed, against you, arising from your exercise of rights under this License. If you convey a covered work, you similarly covenant to all recipients, including recipients of works based on the covered work, not to assert any of your essential patent claims in the covered work.~~

Each contributor grants you a non-exclusive, worldwide, royalty-free patent license under the contributor's essential patent claims in its contribution, to make, use, sell, offer for sale, import and otherwise run, modify and propagate the contribution.[94]

For purposes of the following three paragraphs, a "patent license" means a patent license, a covenant not to bring suit for patent infringement, or any other express agreement or commitment, however denominated, not to enforce a patent.[95]

If you convey a covered work, knowingly relying on a ~~non-sublicensable~~ patent license ~~that is not generally available to all~~, **and the Corresponding Source of the work is not available for anyone to copy, free of charge and under the terms of this License, through a publicly available network server or other readily accessible means, then** you must either ~~(1) act to shield downstream users against the possible patent infringement claims from which your license protects you, or (2) ensure that anyone can copy the Corresponding Source of the covered work, free of charge and under the terms of this License, through a publicly available network server or other readily accessible means~~ **(1) cause the Corresponding Source to be so available, or (2) disclaim the patent license for this particular work, or (3) arrange, in a manner consistent with the requirements of this License, to extend the patent**

[93] See n. 91 and Part I, § 3.2.

[94] See Part I, § 3.3.

[95] See Part I, § 3.4.1.

license to downstream recipients. "Knowingly relying" means you have actual knowledge that, but for the patent license, your conveying the covered work in a country, or your recipient's use of the covered work in a country, would infringe one or more identifiable patents in that country that you have reason to believe are valid.[96]

If, pursuant to or in connection with a single transaction or arrangement, you convey, or propagate by procuring conveyance of, a covered work, and grant a patent license providing freedom to use, propagate, modify or convey a specific copy of the covered work to any of the parties receiving the covered work, then the patent license you grant is automatically extended to all recipients of the covered work and works based on it.[97]

You may not convey a covered work if you are a party to an arrangement with a third party that is in the business of distributing software, under which you make payment to the third party based on the extent of your activity of conveying the work, and under which the third party grants, to any of the parties who would receive the covered work from you, a patent license (a) in connection with copies of the covered work conveyed by you, and/or copies made from those, or (b) primarily for and in connection with specific products or compilations that contain the covered work, which license does not cover, prohibits the exercise of, or is conditioned on the non-exercise of any of the rights that are specifically granted to recipients of the covered work under this License[, unless you entered into that arrangement, or that patent license was granted, prior to March 28, 2007].[98]

Nothing in this License shall be construed as excluding or limiting any implied license or other defenses to infringement that may otherwise be available to you under applicable patent law.

12.[7] No Surrender of Others' Freedom.

If conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot convey the Program,

[96] See Part I, § 3.4.2.
[97] See Part I, § 3.4.3.
[98] See Part I, § 3.4.3.

or other covered work, so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not convey it at all. For example, if you ~~accept a patent license that prohibits royalty-free conveying by those who receive copies directly or indirectly through you~~ **agree to terms that obligate you to collect a royalty for further conveying from those to whom you convey the Program**,[99] ~~then~~ the only way you could satisfy both ~~it~~ **those terms** and this License would be to refrain entirely from conveying the Program.

13. Use with the Affero General Public License.

Notwithstanding any other provision of this License, you have permission to link any covered work with a work licensed under version 2 of the Affero General Public License, and to convey the resulting combination. The terms of this License will continue to apply to your covered work but will not apply to the work with which it is linked, which will remain governed by the Affero General Public License.[100]

~~[13.[8] Geographical Limitations.~~

~~If the conveying 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 limitation on conveying, excluding those countries, so that conveying 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.]~~[101]

[99] We have provided a new example of conduct activating this provision. It more usefully illustrates the kind of direct obligation undertaken by licensees that would be inconsistent with requirements under the GPL. It is also more broadly illustrative in not being limited to patent licenses; an obligation to collect royalties for downstream distribution might arise under copyright licenses or contracts of various sorts.

[100] See Part I, § 4.2.

[101] Having gathered comment on this provision for many months, we have decided to proceed with its removal. Although a principal reason for removing the provision is the fact that it has rarely been used, we have also encountered one current example of its use that we find troubling.

14.[9] Revised Versions of this License.

The Free Software Foundation may publish revised and/or new versions of the GNU 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 that a certain numbered version of ~~this~~ **the GNU General Public** License[102] "or any later version" applies to it, you have the option of following the terms and conditions either of that numbered version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of ~~this~~ **the GNU General Public** License, you may choose any version ever published by the Free Software Foundation.

If the Program specifies that a proxy can decide whether future versions of the GNU General Public License shall apply, that proxy's public statement of acceptance of any version is permanent authorization for you to choose that version for the Program.[103]

~~15.[10] Requesting Exceptions.~~

~~If you wish to incorporate parts of the Program into other free programs under other licenses, 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.]~~[104]

~~NO WARRANTY~~[105]

[102]See n. 9.

[103]For free software projects that want to allow users to be able to upgrade to later versions of the GPL, this new option provides an alternative to specifying "or any later version."

[104]Having gathered comment on this provision since the release of Draft 2, we have decided to proceed with its removal. We will make sure that what is said here is stated in a FAQ entry or other explanatory materials.

[105]Having restored capitalization of the warranty disclaimer, we see no reason to retain this capitalized heading as well.

~~16~~ **15**.[11, **12**] Disclaimer of Warranty **and Limitation of Liability**.[106]

~~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.~~

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.

~~17.[12] Limitation of Liability.~~[107]

~~In no event unless required by applicable law or agreed to in writing will any copyright holder, or any other party who may modify and/or convey the Program as permitted above, be liable to you for damages, including any general, special, incidental or consequential damages arising out of the use or inability to use the Program (including but not limited to loss of data or data being rendered inaccurate or losses sustained by you or third parties or a failure of the Program to operate with any other programs), even if such holder or other party has been advised of the possibility of such damages.~~

IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT

[106] See n. 109.
[107] See n. 109.

HOLDER, OR ANY OTHER PARTY WHO MODIFIES AND/ OR CONVEYS THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.[108]

If the disclaimer of warranty and limitation of liability provided above cannot be given local legal effect according to their terms, reviewing courts shall apply local law that most closely approximates an absolute waiver of all civil liability in connection with the Program, unless a warranty or assumption of liability accompanies a copy of the Program in return for a fee.[109]

END OF TERMS AND CONDITIONS

[108] There is authority under United States law suggesting that effective warranty disclaimers must be "conspicuous," and that conspicuousness can be established by capitalization and is absent when a disclaimer has the same typeface as the terms surrounding it (see *Stevenson v. TRW, Inc.*, 987 F.2d 288, 296 (5th Cir. 1993)). We have reason to doubt that such authority would apply to copyright licenses like the GPL. Nevertheless, pending further research, we have cautiously decided to restore the capitalization of both the warranty disclaimer and the liability limitation in Draft 3.

[109] The warranty and liability disclaimers of the GPL were drafted with attention given to details of United States law, and we know of no good way to internationalize these provisions. This paragraph provides a rule of interpretation to guide courts in jurisdictions outside the United States where it might not be possible for the disclaimers to be given full legal effect. (Section 7 provides additional aid to licensors by authorizing them to supplement GPLv3 with differently-worded warranty and liability disclaimers drafted for compatibility with local law.)

Because this paragraph applies to both the warranty and liability disclaimers, we have included the disclaimers and the added paragraph in a single section.