

ADVISORY

SULLIVAN & WORCESTER INTELLECTUAL PROPERTY ADVISORY

Open Source Software GPLv₂ vs. GPLv₃

The Free Software Foundation (the "FSF") recently released Version 3 of the General Public License ("GPLv₃"). Adoption of the GPLv₃ brought to a close 18 months of public comment and four drafts of the most widely used free software license in the world. According to the FSF, almost 75% of all free software packages are distributed under the GPL.

Since inception, the FSF, through the GPL, has sought to guarantee a software user's freedom to run, study, adapt, modify and redistribute free software programs. The GPLv₃, <http://www.gnu.org/licenses/gpl-3.0.html>, attempts to further this guarantee by, among other things, redefining "distribution," closing the "ASP hole," granting patent licenses to all users, ensuring that users can modify the free software on their personal devices and extending compatibility with other free software licenses. This client advisory highlights these and other significant differences between Version 2 of the GPL, which was released in 1991 ("GPLv₂"), and the GPLv₃. You are encouraged to contact us to discuss specific concerns you may have that are relevant to your business.

1. "Distribution" under the GPLv₂ and Now (Slightly) Redefined under the GPLv₃:

A. GPLv₂. The GPLv₂, <http://www.gnu.org/licenses/old-licenses/gpl-2.0.html>, contains a "copyleft" provision that requires all "derivatives"¹ of open source software licensed under its terms be disclosed to the public for free regardless of whether such derivatives contain, in whole or in part, a commercial software vendor's proprietary applications². For this reason, the GPLv₂ (now joined by the GPLv₃ as you will read below) remains a serious concern to businesses because if, for example, a commercial software vendor wishes to modify an open source application using the vendor's own proprietary code, the GPLv₂ requires that the code be licensed under the GPL - or a less restrictive licensing scheme - to the public for free, regardless of whether the vendor intended this result.

B. GPLv₃. The GPLv₃ has replaced "derivatives" with terms such as "propagation"³ and "conveying"⁴ in the context of whether the license dictates that a modification of a work is a derivative work of the original software code. Section 5 of the GPLv₃ provides, in

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part, that a licensee may convey a work based on the software, or the modifications to produce it from the software, in the form of source code, provided that the licensee also meets all of the following conditions:

- the work must carry prominent notices stating that the licensee modified it;
- the work must carry prominent notices stating that it is released under the GPLv₃; and
- the licensee must license the entire work, as a whole, under the GPLv₃ to anyone who comes into possession of a copy. The GPLv₃ will apply to the whole of the work, and all of its parts, regardless of how they are packaged.

Because the question remains as to what is a derivative work and what isn't (whether an executable that links to a GPL library is a derivative work, i.e. "propagates" or "conveys" under the GPLv₃ for example), there are several steps a company should take to minimize the risk that using open source software under the GPLv₃ (and under the GPLv₂) will contaminate its proprietary code base:

- First, a company should identify all open source software they are using by making a list of all such open source;
- Second, a company should collect the applicable open source license agreements and have legal counsel review them to ensure corporate compliance. Most open source licenses can be found on the Internet at www.opensource.org. As part of this second step, legal counsel should also determine how open source is being used within the company and whether modifications to the open source have been made keeping in mind that if modifications have been made to the open source code under the GPLv₂ or the GPLv₃ license, both licenses likely dictate that the modifications also become open source applications;
- Third, once a company evaluates its legal exposure and patches any holes in its processes, it should develop an open source policy that identifies personnel authorized to review and approve the use of open source applications that the company is using or intends to use, as well as personnel who have the authority to access the open source code and a narrow set of circumstances under which personnel can modify the open source code. All of these efforts should be carefully documented; and
- Fourth, an open source software training

program should be instituted to ensure that personnel are aware of the legal risks that may arise through use of open source and threaten a company's critical intellectual property base.

3. Impact on the U.S. Government. Over the last several years, there has been a significant increase in outsourcing of software development. Under GPLv₂, the transfer of a copy of open source software to a consultant would have arguably counted as a "distribution" which would require disclosure of a proprietary software vendor's source code to the public for free. The GPLv₃ resolves this issue by providing that using a consultant to make modifications to a GPLv₃ licensed work does *not* constitute a "distribution."

The redefinition of "distribution" in GPLv₃ will have a notable impact on the United States Government (the "USG"), the largest software licensee in the world. Over the last several years, USG acquisition of open source software has increased significantly. However, the USG has been concerned that GPLv₂ made it difficult to protect sensitive government software, particularly as more sophisticated hacking attacks on USG networks have become more common. The GPLv₃ resolves many of those concerns.

To understand why, it is important to realize that most software acquired by the USG is either licensed by developers or, more commonly, through integrators and other resellers, and then often customized for USG use. Since the transfer to a contractor for customization counted as a "distribution" under the GPLv₂, it was difficult to protect the USG-specific changes to the software, even though those changes were often security-driven. Under the GPLv₃, a contractor's use of software does not count as a distribution, and thus a contractor's changes to the software do not need to be made public. This change is expected to significantly increase USG acquisition of open source-based software under the GPLv₃.

4. Impact on Application Service Providers ("ASPs"). Drafters of the GPLv₃ also grappled with the issue of how to treat ASPs -- companies that do not "distribute" software, but rather make it available as a service over a network -- in the context of whether a "distribution" would occur under the GPLv₃ when software is accessed, for example, through the Internet. Section 13 of the GPLv₃ expressly resolves this issue by providing

that as no true "distribution" occurs, ASPs do not have to comply with the copyleft provisions of the GPL. This issue, which was not addressed in the GPLv₂, is now referred to as the "ASP hole."

To close the ASP hole, the FSF now provides an alternative license, the Affero General Public License, <http://www.affero.org/oagpl.html> ("AGPL"), which is nearly identical to the GPLv₂ except for the addition of Section 2(d), which covers use of applicable software over a computer network and enables any user to download its complete source code on any screen in a user interface.

Section 2(d) provides, in part, that "if the Program as you received it is intended to interact with users through a computer network and if, in the version you received, any user interacting with the Program was given the opportunity to request transmission to that user of the Program's complete source code, you must not remove that facility from your modified version of the Program or work based on the Program, and must offer an equivalent opportunity for all users interacting with your Program through a computer network." This provision protects the removal of this feature, the "facility," ensuring that the existing software and any derivative works continue to be available to the general public under the same terms as the original work⁵.

5. Automatic Patent Licenses Granted to Downstream Users. As with ASPs, software patents were virtually non-existent in 1991 when the GPLv₂ was released. However, software patents have since become commonplace in the U.S. Although the FSF and others took the position that GPLv₂ provided an "implied" patent license, the lack of an explicit patent license grant in the GPLv₂ created doubts about the existence and scope of this license. The GPLv₃ addresses this concern by granting an explicit patent grant, i.e., any copyright holder who authorizes use of, or contributes to, the relevant software grants with it a non-exclusive, worldwide, royalty-free license to any of the copyright holder's software patents.

In addition, the GPLv₃ was drafted with the intent to block future agreements similar to the agreement between Novell and Microsoft in which Microsoft has agreed not to assert its patent claims against use of Novell's SUSE Linux software by

customers who also purchase maintenance services from Novell. According to the FSF, the GPLv₃ attempts to extend any patent protections provided to only some recipients of a work by stating that if you distribute a covered work knowingly relying on a patent license, then the granted patent license is automatically extended to all "downstream users" of the covered work and works based upon it.

MICROSOFT'S RESPONSE: "Microsoft is not a party to the GPLv₃ license," the company says in a statement published on its web site at <http://www.microsoft.com/presspass/misc/07-05statement.mspx>. "While there have been some claims that Microsoft's distribution of certificates for Novell support services, under our interoperability collaboration with Novell, constitutes acceptance of the GPLv₃ license, we do not believe that such claims have a valid legal basis under contract, intellectual property, or any other law."

6. "Anti-TiVo" Provision. Section 6 of the GPLv₃ requires that any consumer product which uses software licensed under the GPLv₃ must "open up" the software by providing users with the information necessary to modify the software. Frequently referred to as the "anti-TiVo" provision, it applies to consumer products such as portable music players, stereos, televisions, digital video recorders, home security systems and automobile computer systems.

The "anti-TiVo" provision requires that the vendor provide the user with the source code as well as "installation information" for such software. According to the GPLv₃, installation information must provide users with the ability to compile and install modified versions of the source code on the applicable device. The only exception appears to be for software for which neither the vendor nor a third party can install modified software. The requirement to provide installation information does not, however, require the vendor to continue to provide support services, warranties or updates for works that have been modified or installed by the user. In addition, vendors are entitled to deny network access when a modification "materially and adversely affects the operation of the network or violates the rules and protocols for communication across the network."

7. Digital Rights Management. The preamble to the GPLv₃ makes it clear that the FSF disfavors digital rights management (“DRM”) technology by stating that DRM is “fundamentally incompatible with the purpose of the GPL, which...ensures that the software it covers will neither be subject to, nor subject other works to, digital restrictions from which escape is forbidden.” Although the GPLv₃ does not prohibit development of DRM technology, Section 3 provides that if a licensee uses code released under the GPLv₃ to develop DRM technology, such technology will not count as an “effective technological protection measure.” Therefore, if a licensee uses code released under the GPLv₃ to develop DRM technology, such licensee will be free to distribute the software, unhindered by the Digital Millennium Copyright Act (“DMCA”) because the GPLv₃ requires each user of GPLv₃ licensed software to waive its rights under the DMCA and similar laws that seek to protect such works by using “anti-circumvention” technology.

8. Expanded Compatibility. In general, open source software licensed under the GPLv₂ cannot be combined with software licensed under most of the other 100 major open source licenses. The GPLv₃ was drafted to address this issue by increasing the number of licenses with which it is compatible. Notably, works licensed under the Apache Software License (“ASL”) are licensable under the GPLv₃ (although the Apache Software Foundation has not yet determined whether the ASL is compatible with GPLv₃). And, as previously discussed, the GPLv₃ licensed software can be used with software licensed under the AGPL, which effectively closes the so-called “ASP hole.”

9. Broadened Scope of Works. The GPLv₂ was limited in its applicability to software programs only. GPLv₃ is much broader as it applies to any “copyrightable work” including software, documentation, music and expressly including semiconductor masks.

10. Termination. As with the GPLv₂, the GPLv₃ will automatically terminate upon breach and continued use of the program will constitute copyright infringement. Unlike the GPLv₃, however, the GPLv₂ did not address whether a licensee had the ability to “reinstate” its license rights after a breach and then return to compliance. The GPLv₃ now includes a procedure for reinstatement of license rights if a licensee violation is cured within

a set time period. Specifically, a copyright holder must notify a licensee of a violation before it is permitted to terminate the license. If such notice is not provided within 60 days after the violation is cured, the license will be reinstated. In addition, a license will be reinstated if it is the first time that a licensee has received a notice of violation and the licensee cures the violation within 30 days of receipt of the notice.

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The summary above is meant to describe the major changes between the GPLv₂ and the GPLv₃. For a more comprehensive discussion of the changes that could affect you, please contact the lawyer at Sullivan & Worcester LLP with whom you regularly consult, or one of the lawyers above.

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¹ The Copyright Act, at 17 U.S.C. §101 defines a “derivative work” as a work based upon one or more preexisting works, such as a translation, musical arrangement, dramatization, fictionalization, motion picture version, sound recording, art reproduction, abridgment, condensation, or any other form in which a work may be recast, transformed, or adapted. A work consisting of editorial revisions, annotations, elaborations, or other modifications which, as a whole, represent an original work of authorship, is a “derivative work.”

² In an affidavit submitted to a Massachusetts Federal Court in the 2001 *Progress Software Corp. v. MySQL AB* case concerning, in part, the enforceability of the GPLv₂, Eben Moglen, the FSF’s attorney, shed some light into the FSF’s intent in drafting the GPLv₂. In particular, Professor Moglen identified “three primary conditions” of the GPLv₂, stating that if a company receives software under the GPL and then distributes it redistribution must itself occur under the GPL and only the GPL, with no additional license conditions; redistribution must include “source code,” the human-readable form of computer programs that allows programmers to understand and modify computer programs for themselves, as opposed to “object code,” which is the “machine language” version of computer programs that is very difficult for programmers to understand or modify; and redistribution must include a copy of the GPL so that users are aware of their rights to use, copy, modify and distribute, and so that anyone engaged in redistribution is also aware of the conditions under which redistribution is permitted.

³From the GPLv₃: To “propagate” a work means to do anything with it that, without permission, would make you directly or secondarily liable for infringement under applicable copyright law, except executing it on a computer or modifying a private copy. Propagation includes copying, distribution (with or without modification), making available to the public, and in some countries other activities as well.

⁴From the GPLv₃: To “convey” a work means any kind of propagation that enables other parties to make or receive copies.

⁵It is interesting to note that the AGPL is the only non-FSF license explicitly mentioned in the GPL and is the first open source license to address software as a service.