Reassessing The Benefits and Risks of Open Source Software

By Edmund J. Walsh and Andrew J. Tibbetts

From the early days of open source software, there have been questions about the legal risks of incorporating open source into a product. Questions focused on two types of risks: (1) the risk of losing competitive advantage from open source terms requiring a waiver of intellectual property (IP) rights in products incorporating open source software and (2) the risk of IP infringement caused by copying, whether intentional or unintentional, from proprietary software into open source software. For many years, the speculation about these legal risks has been just that—speculation—as there was no substantial litigation over open source software.

A recent spate of litigation has changed that. Litigation has touched on both of these issues, including suits to enforce open source terms (which could be the basis for losing IP rights in products using open source) and suits charging infringement based on the use of open source software. For-profit companies that made decisions about the legal risks of open source based on a history free of litigation should reassess their risks.

Jacobsen v. Katzer

At issue in *Jacobsen v. Katzer* was the consequences of failing to abide by terms for using open source software set by the software developer. Advocates of open source software won a victory when a federal appeals court ruled with an endorsement of the open source licensing model. The net result is that those who do not comply with the open source terms can be sued for copyright infringement, ordered to pay damages, and stopped from using the software. The *Jacobsen* decision is significant because it was the first time that an appellate court

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directly considered the legal tenets of open source software and set a standard for remedies in open source disputes that put real teeth into restrictions in open source terms.

In *Jacobsen*, a commercial software firm distributed Jacobsen's open source software in its products but failed to include a notice, required by the open source terms, identifying both the origin of the software and the parts that had been modified. Jacobsen sued for copyright infringement and sought an injunction against further distribution of the software without the required notices. The district court was unsympathetic to Jacobsen, apparently swayed by the fact that he intended people to use, modify, and distribute the software freely.

The appeals court reversed, finding that Jacobsen only provided authorization to recipients to use the software while they abide by the community terms. By not including the required notice, the appeals court said, the recipient had no license to the software and was thus a copyright infringer. Moreover, unlike the district court, the appeals court was unwilling to overlook violation of terms that had no apparent direct economic impact on the software creator. In doing so, the appeals court recognized that the community model of software development relied on such terms being enforced.

The court's decision turned more on a technicality, focusing on whether the requirement to abide by the open source terms was a condition that had to be satisfied for a license to exist or a promise for how the recipient would act after the license was granted. According to the appeals court, the document listing the terms clearly set forth that it was intended to "state the conditions under which" a license is granted and the software may be used. A large part of the court's analysis was based on the precise wording, which stated: "you may [use the software] provided that you" comply with the terms.

While the conditions challenged in this dispute may seem trivial to some, the court found

them to be preconditions that a software recipient had to meet (and continue to meet) to have any right to the software. Failure to comply with the community terms, the court said, made the commercial distributor (Katzer) a copyright infringer, just as if he had stolen the software. Infringing a registered copyright carries with it the risk of statutory damages, injunction against shipping products incorporating the open source software, and possibly other penalties; some may find this a surprising consequence of using "free" software.

Lessons from *Jacobsen*

The terms of the license in *Jacobsen* related primarily to identification of authorship, but the rationale would apply equally to terms that a for-profit company may find more burdensome, like those requiring release of source code for proprietary software that is combined with open source software.

This case offers one clear lesson for those using open source software in businesses: Open source software is not "public domain." If an enforceable conditional license accompanies open source software, there may be a significant risk in ignoring its terms. Even if the terms seem trivial, odd, or needlessly burdensome in a for-profit arena, the risk of ignoring them could be substantial monetary damages and a court order barring use or distribution of products incorporating open source software.

In *Jacobsen*, there was no substantial issue of whether a party who misused open source software would lose intellectual property rights that it created in its product. However, other cases demonstrate that the risk of liability as a copyright infringer can be enough to force companies with open source in their products to release source code and to waive their intellectual property rights in that source code. That scenario played out in a few cases.

Free Software Foundation v. Cisco

The Free Software Foundation (FSF) case against Cisco is an example of open source advocates seeking users of open source who have not disclosed source code to their satisfaction. The threat of litigation was a basis to insist on disclosure of source code and grant of broad, no-cost licenses to recipients of products using open source.

As background, the FSF administers the widely used GNU Public License (GPL) that is based on the open source license model described above. The FSF also accepts copyright assignments donated by those who create and distribute GPL-licensed software. The FSF can use the threat of infringement of these copyrights to enforce the GPL terms.

The *FSF v. Cisco* case stemmed from one such use of GPL-licensed software in a product for which source code was not provided. Linksys, a division of Cisco, had incorporated GPL-licensed software into firmware for its networking devices and did not provide the source code for that firmware to customers. Additionally, Linksys was distributing GPL-licensed software on its Web site only in compiled, executable form without also providing the source code for that software. However, the GPL requires that any distribution of GPL-licensed software include the source code and include a grant of permission for anyone to freely use that software, such as by copying or modifying the source code or putting that GPL source code in competing products.

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The FSF negotiated with Linksys and then Cisco for years. The parties settled that dispute, and the settlement involved payment in the form of a "donation" from Cisco to the FSF. Additionally, the settlement required that Cisco ensure that source code was made available to its customers. Under the settlement, Cisco was to make source code versions of all eligible software available on its Web site (meaning all Linksys software that is a derivative of or includes GPL software) and make efforts to contact customers regarding their rights to the GPL-licensed software under the terms of the GPL. The company was also to appoint a compliance director to be responsible for periodically reporting on compliance to the FSF.

The *FSF* litigation is not the only such case of open source advocates pursuing violations of licenses; it is only the most recent. Previously, for example, Verizon and three other defendants settled a year-long dispute regarding distribution of

BusyBox open source software with terms concep-tually similar to those of the *FSF* case.

Lessons from *FSF*

One lesson is that the risk of non-compliance is likely to fall on the party selling a product that incorporates open source. In the *Verizon* case, the Verizon product was designed by someone else, yet Verizon was the one sued. Similarly, in the FSF case, the dispute had its origins in work done by Linksys before Cisco acquired that company.

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Another lesson relates to the need to take the open source terms seriously. In the FSF and BusyBox cases, there did not seem to be a dispute about what software was covered by the open source terms or what those terms were. By releas-ing the source code for that software, the defen-dants were about where they would have been had they followed the open source terms from the outset, though they were out the cost of the "dona-tion" made by Cisco and the BusyBox defendants to open source licensors and the costs of litigation.

For some companies, abiding by the require-ments of these licenses may not be onerous. In other circumstances, the same legal principles may have a devastating impact. The GPL and most other open source licenses apply beyond open source code in the form in which it was obtained from others in the open source community. Those terms, includ-ing the requirements to release source code and grant broad licenses, apply to any software derived from the software as received. When open source software is combined in a product with proprietary software developed at considerable expense or intended to provide a competitive advantage, com-pliance with the open source terms can be difficult or devastating. If the proprietary portions of the product can be considered to be derived from the open source code, there may be a requirement to distribute source code and grant broad licenses to the proprietary portions of the product.

Accordingly, businesses that are considering products incorporating open source software should ensure that the open source terms can be met in a way that is consistent with their commercial plans that involve using proprietary features for competi-tive advantage. When products are being designed by others, use of open source should be considered and, if not appropriate, prohibited from the outset.

Infringement Risk

Knowing how open source licenses may affect one's business decisions may be only half of a busi-ness' concern. Though many software developers are willing to contribute their software to the open source community and allow it to be freely used and copied, not all software developers agree.

Many proprietary software developers have invested significant time and resources in software products and object to having their code or patents shared with the open source community. As open source gains in popularity and in the value that it contributes to products, IP challenges to those who distribute or use open source software should be expected. Two recent cases highlight these risks.

Red Hat v. Firestar

Red Hat, Inc., a distributor of one popular enterprise-grade version of Linux, recently settled a patent dispute with Firestar Software. Here, Red Hat was stuck between somewhat of a rock-and-a-hard-place: It had to address Firestar's allegations but in a way that was true to its desire to be an open source distributor. Traditional approaches for settling patent litigation, such as a covenant not to sue or a non-exclusive license, may not work for open source software. A license that does not allow a distributor to give downstream recipients the rights to modify and further distribute the software would not allow that software to continue to be distributed as open source software. The distributor thus could not claim compliance with the open source terms when it distributes its software and should not include in its software any open source software.

In this case, though, Red Hat was able to settle the dispute in a way that allowed it to continue to distribute its software under open source terms. Red Hat negotiated a license to Firestar's pat-ents that extended to the "Red Hat community," namely, anyone who uses, develops, modifies, or redistributes Red Hat products, defined as products directly developed and distributed by Red Hat and

derivative works developed and distributed by the community.

Lessons from *Red Hat*

The *Red Hat* case is notable because the settlement is roundly acknowledged to have complied with the obligations of the GPL. It shows the lengths to which those distributing open source software may need to go to continue distributing their software after being accused of violating IP rights of others.

The license that Red Hat negotiated is indisputably broad, and it should not be expected that all owners of IP rights will grant such broad licenses. Such a broad license, extending throughout a community to all potential users and redistributors of the software in dispute, can radically diminish the value of the IP for its owner. Accordingly, IP owners may be reluctant to grant such licenses or may demand prohibitively large payments in exchange for such licenses. Though, if such licenses are to be granted, both sides would be advised to take care that they are drafted to clearly express their intent.

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The newest version of the GPL, GPLv3, provides several "outs" that allow open source distributors to stray from the open source principle of unfettered rights to all downstream users. If an open source distributor does not or cannot obtain a broad license to someone else's patents that it is accused of infringing, GPLv3 nonetheless deems continued distribution to be in compliance with the open source terms if the same source code is available from a public Web server, whether operated by the distributor or someone else. Also, if the distributor does not have "actual knowledge" that its software is infringing the IP rights of another, its distribution is also considered to comply with the open source terms.

Of course, just because the GPL deems such distribution to be acceptable, it does not mean the owner of the IP rights will agree. An open source distributor who takes a license that does not extend to its community, yet continues to distribute under the open source terms, may find itself facing a patent challenge again, charged with indirect infringement. Moreover, even if the distributor takes a license to free itself of liability, if that license does not extend to downstream users, those downstream users may become infringers for treating what was seemingly open source software in accordance with the open source terms.

Microsoft v. TomTom

In *Microsoft v. TomTom,* a company that had incorporated into its products open source from a distributor who had not dealt with allegations of patent infringement was faced with a patent suit. Microsoft brought suit against TomTom, maker of GPS navigation devices, for infringement of a set of Linux software patents embedded in TomTom's devices.

Microsoft could have brought suit against the distributor that provided Linux to TomTom, but in this case, Microsoft did not. Moreover, the GPL disclaims warranties and indemnification obligations, so, unlike a dispute involving proprietary software, TomTom did not demand that the supplier of the software take over the litigation. Consequently, TomTom was left to deal with the allegations. The parties settled after TomTom agreed to remove the allegedly infringing technology from its products within two years.

An interesting footnote is that the suit prompted TomTom to join the Open Innovation Network (OIN), leaving some to conclude that TomTom was not left completely alone in responding to the suit. The OIN was formed to build a portfolio of patents and licenses for patents that cover open source products (particularly Linux). Those who agree not to assert patents against Linux benefit from a license to these OIN patents. The OIN is also affiliated with a group known as the Linux Defenders, whose aim is to defend open source developers against charges of patent infringement. Although Linux Defenders has not yet revealed its tactics, some speculate that the OIN portfolio could be used to bring suits against those who assert patents against Linux. Further, the OIN encourages and organizes prior art searches for patents that are alleged to cover open source products. The results of these prior art searches may be used to file requests for reexamination of those patents with the US Patent and Trademark Office

in attempts to invalidate or narrow the scope of the patents. In this litigation, neither the OIN nor the Linux Defenders appear to have played a role, but the possibility of such community action is another dynamic that bears watching.

Lessons from *TomTom*

Though open source software is different from proprietary software in some ways, one of them is not an exemption from the patent laws. Open source is also not exempt from the laws of economics. Patent holders, if they enforce patents against open source, are likely to target those who are making money from the open source, likely to be manufacturers or sellers of products using open source. Ironically, it may be for-profit companies using open source in their products that need to pay the most attention to infringement risks.

Conclusion

As open source is used in more products, doubtless there will be more litigation, over conditions under which those who build products can incorporate open source and infringement of IP rights. Of course, litigation over terms of use of software or IP infringement is not new in the software world. Recent litigation may simply be a sign that open source is growing more mainstream.

Yet, if companies adopted a strategy regarding open source thinking that an early history free of legal disputes proves that there are no risks, it is time to reevaluate.

Considering the risks in advance gives companies a chance to address issues before they rise to the level of litigation. Many open source terms, such as crediting software creators or informing customers of their rights to modify the source code, can be easily and inexpensively met if dealt with before a product is released, but become a logistical nightmare or customer relations crisis if compliance with the terms is not considered until a demand for damages is received or litigation is threatened. When open source terms are not compatible with a proprietary product strategy, considering the risks early at least allows a company to seek alternatives, such as finding similar software distributed with terms more favorable to for-profit product developers, whether that other software is proprietary software or open source with a more favorable set of terms.

Claims of IP infringement often are not quite as easy to address, yet there is value to considering them early. Awareness of the risk may lead to changes in a product design or may drive selection of a software distributor that has a greater willingness and ability to address claims of IP infringement.