The Different Ways that You Can Protect Your Software

It goes without saying that software can possess quite a bit of value. In fact, for many companies, it is likely that their software is their most valuable asset—even more so than their real estate portfolio. After all, software licenses can run up to hundreds and even thousands of dollars per user, in turn generating substantial revenue.

For individuals and businesses who create software, it is absolutely imperative to protect software as much as possible. But for software creators, what options exist for protection? The answer to that question is rather nuanced, as different aspects of software can be eligible for protection using different forms of intellectual property: patents, copyright, trade secrets, and trademark. Whether a company is a small startup or established in its field, it is important to always ensure that it is protecting creativity as much as possible.

Getting a patent for your software

The first way to get protection for software is by applying for a patent. Compared to other forms of intellectual property, a patent typically provides the highest level of protection. By securing a software patent, the owner of the patent gets the exclusive rights to their invention and can prevent others from making, copying, selling or importing their intellectual property.

Unsurprisingly, it is both time consuming and typically expensive to apply for and hopefully secure a software patent, often spanning several years and tens of thousands of U.S. dollars. A very focused description of the invention along with supporting figures and claims that set out the metes and bounds of the invention must be prepared and then filed with the United States Patent and Trademark Office (USPTO). Then the application is maintained in a queue at the USPTO before being examined. Often the examination process involves two or more office actions and subsequent responses. If the process is successful, then further governmental fees are required for the application to issue as a patent.

Well over half of all patents granted in the United States are in some way "software-related." However, the less that the software is specifically related to a machine or transformation of material, the more challenging it can be to secure patent protection. Despite potential challenges, however, the reality is that in recent years the number of patents incorporating software in some form continues to increase significantly from year to year. Top patent acquirers of software related patents include such conglomerates as IBM, Samsung, Intel, Microsoft, and Canon. Nevertheless, a healthy percentage of the total number of relevant patents continue to be issued to much more focused enterprises, using such patents to secure a competitive advantage in their relevant industry.

When applying for a patent incorporating software, there are certain areas that need extra attention. In particular, one of the most important aspects relates to how software must be described in a patent application. When patenting software, the code itself is not being patented. Rather, what is being patented are the processes that make a code functional, and hopefully in conjunction with a machine or transformation of material. In a nutshell, this means that when writing a patent application, the description should be so complete that the processes and structures of the invention that make the code functional in the appropriate context are clear and then can be replicated by others no matter what code they are using. Per 35 U.S.C. 112 regarding the written description requirement, "a patent specification must describe the claimed invention in sufficient detail that one skilled in the art can reasonably conclude that the inventor had possession of the claimed

invention." So, when writing the application, the goal should not be to have a patent that can be understood at a basic level by a broad audience. Rather the application should be written so that someone of so-called ordinary skill in the field would be able to replicate the processes and structure with relative ease.

To illuminate what patentable software looks like, it can be helpful to take a look at an example of a software patent. For instance, Coinbase—a digital currency exchange where individuals can trade cryptocurrency such as Bitcoin and Ethereum—was issued US Patent No. 10510053 for a system and method for the transaction of Bitcoin called "Instant Exchange." Through this system and method, Bitcoin can be sent to someone through an email address. Using what is called "hot wallet functionality" (which means a Bitcoin wallet that is connected to the Internet), the values of some Bitcoin addresses are then transferred over to a vault for protection. Further, there is a private key for a Bitcoin address that is "split and distributed" in an effort to ramp up security. There are multiple email addresses in the vault that can be used to provide authorization for transferring a Bitcoin from the vault. Through this system and method, users have the ability to have private keys stored in a place where they can have control, and then through the instant exchange, a "local currency price" can be locked by customers and merchants and users are also able to set prices that they would be willing to either buy or sell Bitcoin.

Protecting your software another way: Copyright

Beyond applying for a patent, there are other ways that software can be protected. One of the easiest ways to protect software is through a copyright. Software code, which is a form of written expression, is protected by copyright—and thanks to the Copyright Act of 1976, procuring copyright protection is a very simple process. Rather than having to register with the U.S. Copyright Office to be granted a copyright in an original work, an author of the original work is automatically given copyright protection as soon as the work is fixed in a tangible medium. That means that if another party attempts to use software that already has copyright protection without permission, then they can be sued for copyright infringement.

Even though it is not necessary to file a copyright with the Copyright Office in order to have copyright protection for an original and fixed work of authorship, it is an important step and should be done. There are multiple reasons for this. For instance, if a party wants to file for copyright infringement on their software code, then they must first register their copyright with the Copyright Office before commencing a lawsuit. Another reason relates to statutory damages. If a work is registered with the Copyright Office before infringement begins (or if it happens within three months of when the work was published), then the suing party may be entitled to collect both attorney fees and court costs as well as statutory damages worth up to $150,000 per infringement.

In general, registering with the Copyright Office is a smart move. It provides strong evidence that an individual or company was in fact the first to author a work, helping prevent the unnecessary headache down the road of having to prove who was the initial creator. Beyond this, unlike applying for a patent, it is both generally easy and inexpensive to register a copyright. In fact, depending on the work and whether or not you are filing an expedited application, it usually costs less than $100 to register a copyright. It might make sense to engage specialized counsel if you are only doing a single filing or if you are trying to register software that includes a claim of trade secret protection. Otherwise, useful materials including circulars are available from the Copyright Office at copyright.gov.

Additional ways to seek protection

Beyond copyright and patent, another way that software can be protected is through trade secrets. In fact, it is sometimes possible to obtain a copyright registration while taking steps to maintain trade secret protection of the software. According to the USPTO, in the United States, a trade secret is information that has either "actual or potential independent economic value by virtue of not being generally known." Additionally, the trade secret also "has value to others who cannot legitimately obtain the information" and the holder of the trade secret must make "reasonable efforts to maintain its secrecy."

There are multiple benefits to protecting software as a trade secret. First, there is no application or fee, unlike with copyrights or patents—the latter of which can be quite expensive as discussed above. Additionally, with trade secrets, protection exists immediately and for so long as secrecy is maintained. However, there are limits to protecting software through trade secrets. For instance, the trade secret protection of software likely will just extend to the source code itself. The reality is that if the software is capable of reverse engineering by a third party with no duty to maintain confidentiality of the software then it will not be a secret for very long.

If an individual or a company is seeking to protect their software as a trade secret, then it is absolutely imperative to take a number of measures in order to maintain secrecy of the software. For example, a company could require that any employee who has access to the trade secret-protected aspects of the software sign a written confidentiality agreement that restricts their ability to discuss this information with any nonessential parties. Beyond this, a company should limit the number of individuals who have access to trade secret-protected information to those who are essential. They should also take strict measures regarding cybersecurity to ensure that information related to the trade secret is not breached. Outsiders who are granted access to the software should also be required to sign agreements agreeing to maintain the secrecy of the code and/or its operation. These are just a few of the steps that can be taken in order to strengthen the case that a trade secret does exist. The more steps that are taken to reasonably protect information associated with software, the stronger an action for breach of a trade secret will be.

Finally, in addition to the aforementioned, there is yet one more way that software should be protected: trademark. There are multiple aspects of a software product that can potentially be trademarked including the product's name and any associated logo. To be eligible for trademark protection, a source identifier such as a name or logo must be used in commerce and it needs to also be distinctive (you cannot acquire a trademark for a generic name or description and it is always unwise to choose a source identifier that might cause confusion with the source identifier of a competitor. While trademark protection does not require a federal registration, such a registration can be very helpful to expand the scope of protection and associated damages if a lawsuit is filed against an infringer. The expense and time to seek a federal trademark registration is greater than that of a copyright registration, but much less than that associated with a patent. ❯