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Commentary: Covering Your ATS

The ABCs of Patents and Trade Secrets

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Following in the footsteps of the banks and traditional exchanges, ATSs are exploring ways to protect their costly innovations. ATS patent and trademark filings have skyrocketed in the last few years. It's no surprise: novel ATS technical infrastructure and brand recognition may make the difference between a successful venture and a failed one. These off-exchange trading venues are still coming up to speed on the availability and benefits of intellectual property (IP) protection. More specifically, they want to know: how do they decide when to file for patent protection, guard an innovation as a trade secret, or incorporate both patents and trade secrets into their IP strategies?

Patent = Barrier to Entry

The most important benefit a patent brings its owner is the creation of a barrier to entry into a particular market. Venture capitalists live by this. They view patents as a growth metric. By keeping competition at bay, patents allow a budding company to hold onto higher gross margins, which results in more capital to invest in R&D which, in turn, results in more valuable technologies to patent, and so-on.

To get a patent in the United States, an invention must serve a useful purpose, not have been invented before, and be sufficiently different from what is already known. In the United States, a patent owner has the right to exclude others for a limited time (usually 20 years) from making, using, offering for sale, selling, or importing the invention. Many ventures also engage foreign counsel to file for protection overseas.

The patent owner receives this right to exclude in exchange for sufficiently telling the public how to make and use the invention vis-a-vis the patent. A common misconception is that the innovator must disclose all of its trade secrets in order to sufficiently disclose how to make and use the invention to the public. The disclosure requirement, however, only applies to information known at the time the application for patent is filed (i.e., not to later-developed trade secrets), and further applies only to information relevant to the specific claimed invention.

By example, if a broker and a software engineer conceive a new computer system containing a novel blotter scraping method, they may jointly file for patent protection in the United States Patent and Trademark Office (USPTO). During this time, they may reach out to venture capitalists and other sources for initial funding. After their patent attorneys battle it out with the USPTO over the claims (the scope of a patent), their patent may issue and it can be licensed to others for royalties or used to sue competitors practicing their patented system (called "infringement") for damages and/or injunctive relief (i.e., to stop the infringing use). Of course, the issues can become more complex than those arising in this example, but the basic strategy remains: invent, file, funding, issue, license/sue, collect fees or preclude competitors.

Technologies that can be protected by patents must be classified as a process, machine, manufacture, or composition of matter. In 1998, the U.S. Court of Appeals for the Federal Circuit issued its State Street Bank decision which made it clear that business-related subject matter can be patented if it is otherwise classified as an eligible technology. The recent In re Bilski decision further clarifies that processes (e.g., the steps of an algorithm) must either be tied to a machine or perform a transformation. For instance, novel dark pool algorithms may be eligible for patent protection if claimed as a machine (e.g., a computer system) programmed to perform the novel dark pool algorithms, the novel dark pool algorithms stored in a computer readable medium (e.g., a hard drive), the dark pool algorithms implemented at least partially in a machine or performing a so-called "transformation" (what constitutes a "transformation" is still developing in the case law).

State Street gave the green light to innovators of business-related applications to file for patents, resulting in a boom of financial services-related filings. The landmark decision opened the door, but the increase in ATS patent application filings also tracks the growth in the number of non-exchange trading venues over the last few years. The law is rapidly developing in this area

and ATSs would be wise to stay on top of the changes, following the lead of other companies that rely on sophisticated software or business method innovations.

Trade Secret = Trust Your Employees + Watch Your Back

A trade secret is confidential information that is valuable because it is kept from the public and provides some business advantage. General examples of trade secrets are formulas, patterns, compilations, programs, devices, methods, techniques, and processes. ATSs may keep trading algorithms, source code, network diagrams, and client lists as trade secrets. Some companies take extraordinary steps to protect their trade secrets, such as setting up sophisticated IT systems and a gauntlet of non-disclosure agreements.

While patent law is governed by federal statutes, trade secrets are handled primarily on a state-by-state basis, with most states having their own trade secret laws. Certain states, such as, New York and New Jersey, have no formal laws addressing trade secrets, instead relying on judge-made common law. The improper use of a trade secret, commonly called "misappropriation," typically involves the use or disclosure of a trade secret that was acquired through a relationship of trust (e.g., employment), or through fraud or other improper means (e.g., hacking, theft, or bribery).

By example, a broker and a software engineer develop a new computer system containing a novel matching process for their start-up ATS. They may sign a non-disclosure agreement forbidding either party to disclose without the other party's consent. If the software engineer tries to use the novel matching process in a side business, without the broker's consent, the broker may sue the software engineer for misappropriation of the trade secret.

To further protect the innovation, the software engineer and broker may require anyone they share the information with to sign non-disclosure agreements. If a financier is interested in investing in the technology, the software engineer and broker may require the financier to agree not to disclose or use the matching process trade secret. If the financier starts a new business using the novel matching process, in a way that violates the non-disclosure agreement, the software engineer and broker may sue the financier for misappropriation of the trade secret and breach of contract. However, if a third-party investment bank independently develops the same matching process, the software engineer and broker cannot stop the investment bank from marketing their process.

Patent v. Trade Secret

Patent protection can offer great value, but the initial costs may be substantial and difficult to swallow. Seeking patent protection requires paying upfront fees for the chance to mitigate downstream costs (obtain higher leverage in patent disputes and establish a public domain reference to show others' later inventions are invalid) and enhance downstream revenues (i.e., licensing, lawsuits, higher gross margins). In other words, it requires taking a long-term view.

Indeed, a patent may take several years to issue and cannot be asserted against infringers until issuance. At issuance, the barriers to entry will form around the market. If the technology will be used in the long-term, then the patent owner may enjoy a limited monopoly for around twenty years after the patent's filing date.

Patent applications are normally published eighteen months after the filing of the application, and usually well before any patent is likely to issue. So, while an inventor waits for the patent to issue, competitors are allowed to read all the details of the invention, and may appropriate important concepts while the inventor waits "on line" in the USPTO. But the competitors who appropriate concepts from a pending patent run the risk that the concepts they incorporate will end up being covered by the patent that ultimately issues. For example, a competing ATS that infringes a matching process patent could be shut down after significant development and marketing costs have been sunk, not to mention the loss of business from disappointed traders. However, the near-term is not lost. Just the step of filing patent applications may augment a start-up venture's ability to get outside financing, if raising capital is a concern for the ATS.

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