Patent prosecution strategy for technology startups

Introduction

There are three critical junctures during the lifecycle of a technology startup. The first is when the founders seek financing from angel investors or VCs. The second is when the startup launches its first product to the public. The third is when the startup attempts to implement an exit strategy (*eg*, through an acquisition or IPO). As a founder of a technology start-up, pending and/or issued patents are an important tangible asset that not only provides your company strategic legal and economic advantages but also can help to convince your investors, customers, suppliers, competitors, potential acquirers, underwriters, and even Wall Street itself during these three critical junctures that your technology is cutting-edge and valuable.

All technology startups should develop a patent strategy from the outset. It is advisable to do so even before you have obtained financing because pending patent applications can help you negotiate a higher valuation and possibly obtain more favorable financing terms. Patents can protect your place in the market, and can dissuade and even exclude potential competitors from entering your market. Patents can deter other companies from asserting their own patents against you, or can place you in a better strategic position should there be patent litigation. Finally, patents can be translated into real economic value through licensing, an outright sale of the patents, or assertion in litigation.

Strategies for Developing a Patent Portfolio

Any company has the option to keep its inventions trade secrets of the company instead of publicly disclosing them in patents. However, since most inventions can be reverse engineered from the resulting products or services, patents are usually the only effective way to keep others from using the inventions. Therefore, once a company decides to build a patent portfolio, the following guidelines should be considered:

- *Identify the key market space, and where the company and the market are headed*. It is critical to identify the key space within the market that should to be protected (*eg*, solar cells using material X). It also is critical to identify the areas where the company, its competitors, and the market are headed in the future (*eg*, solar cells using material Y). A good patent attorney can draft the claims of the patent (which define the ultimate patent rights) in a way that protects both existing market space as well as future market applications. Obtaining broad patent claims is akin to grabbing a large area of land.
- *Develop a budget*. Decisions are best made with a budget in mind. The U.S. Patent Office filing fees start at approximately $1600 per patent (lower for "small entities" and "micro entities"), and can exceed $2000 for lengthy applications. The legal fees for a patent attorney to prepare an application typically range from $3,000 to $15,000 (depending on the complexity of the invention). Additional fees will be incurred as the application is "prosecuted" before the Patent Office because initial rejections are commonplace (typically on the basis of prior art discovered in the Patent Office search and/or perceived technical deficiencies in the application). A budget will help to determine how many applications to file and how to prioritize them. A budget will also help determine whether counterpart patents in other countries should be filed.
- *Decide which countries are critical to the business*. Each country has its own patent system that requires a local patent application be filed in order to be enforced there (i.e. a U.S. patent can only be enforced in the U.S. based on activities in the U.S.). For each filed U.S. patent application, the company will need to decide whether to file that application in

other countries as well, which can be expensive. In general, a patent application should be filed in any country in which the invention is made, used, sold or imported. While the company should focus on those countries that contain a significant customer base for its products or services, filing applications in other countries can add value to the portfolio.

- *Identify inventions*. Have a process for identifying potentially patentable inventions. The decision should take into account the tradeoff between patent and trade secret protection. Almost every company will have a new technology or product as the foundation of its business model. This technology or product likely will be based on one or more patentable inventions. It is always advisable for a company to consult with a patent lawyer to determine if it has developed patentable innovations. It is also advisable to have regular "patent meetings" with key technology employees to identify any new inventions. These employees are usually focused on productizing the technology, and will generally not place the proper priority on pursing patent applications without a structured internal patent program. The process should focus on "chokepoint" inventions which can control versions of the product made by another company. The strategy could include patenting both the product and the method of manufacture. The startup should have experienced counsel review the patent portfolios of its competitors to determine which of the startup's inventions are most valuable to protect. The strategy should take into account the patents filed by competitors in order to be able to respond to potential challenges by such competitors.
- *Identify key events that will trigger patent deadlines*. In the United States, a patent application must be filed within one year after the inventor first publishes the invention, makes it available to the public, sells it, or offers it for sale. That one year grace period does not apply to third party activities (any third party disclosure of your invention would block a later filed application by you). Almost all other countries are stricter, requiring that a patent application be filed before any such activity occurs. Thus, before a product is ever launched or demonstrated, or before any inventor attends a conference in which technologies are revealed, it should be determined if a patent application should be filed first (or that the one year anniversary date be calendared if there is only an interest in filing a U.S. patent application).
- *Consider a strategy for revenue generation*. Often times an aggressive patent licensing and/or patent sales program can be a business unto itself. It is well-known that IBM generates approximately $1 billion per year in licensing revenue from its patent portfolio. (See Bruce Bigelow, *By cultivating revenue growth through licensing, more U.S. companies are marketing their intellectual property*, The San Diego Union-Tribune, May 14, 2006.) Other companies have successfully licensed and/or sold their patents, either one at a time or as an entire patent portfolio. Of course, if a company practices the patented invention, it will need to get a license or covenant not to sue from a purchaser of the patent to continue such activities.
- *View patents as an asset*. Patents are not just pieces of paper. They are assets just like stocks or real property. Investing $15,000 now in patent preparation and filing fees can reap rewards that are tenfold (or even hundredfold) greater than the initial investment for the company—or perhaps more importantly an acquiring company—in licensing fees, patent sale proceeds, and/or court judgments in the future. Patents can help lure potential investors, acquirers, or Wall Street underwriters when the company is at a critical stage in its growth.
- *Be mindful of obligations to government funding sources.* Most government funding grants provide the granting agency with certain rights to any inventions (and patents thereon) developed using the grant funds. Usually those rights are in the form of a royalty free, non-exclusive license back to the government. Given the proliferation of government grants for funding technologies, companies need to carefully consider how such government rights in their inventions might affect their business plan (and the value of their patents in particular) before accepting the funds. Such governmental rights prevent the company from granting exclusive licenses to others, and may allow their competitors to use their inventions without compensation. Additionally, any such grant rights must be identified in U.S. patent applications. Companies with other funding sources will need to carefully track which inventions are not developed using the government funds, and thus not subject to the grant provisions.
- *Consider Impact of Standards Bodies.* Address how to participate in standards bodies if your product or services will be

based on standards. Most standards bodies have IP policies for its participants and/or members. If you participate in a standards body proceeding, you might be obligated by an IP policy to provide a license to other participants at a "FRAND" (fair, reasonable, and non-discriminatory rate) or even on a royalty-free basis.

- *Conduct Regular Reviews of the Strategy.* Implement a regular review of patent applications and patents to ensure that the patent strategy remains consistent with the startup's business strategy. For example, if your company alters course with its product offerings, as a cost-cutting measure you may want to consider abandoning any existing applications on the obsolete products In addition, if your company alters its product offerings, consider whether new patent should be filed on the new product offerings.

Patent Application Timing Considerations

The two most critical decisions in the timing of a patent filing strategy are (1) when to file a complete (as opposed to a provisional) application and (2) when and where to file in foreign countries. These decisions are based on when the startup will need protection in a jurisdiction because a patent is only enforceable after it is issued. For most companies, however, these decisions will be driven by the strategy of deferring costs until the value of the patent to the startup can be confirmed.

Filing in the US

In the US, a patent application can be filed within one year of the first public disclosure of the idea being protected by the patent application. A provisional application is an application filed with the Patent Office to obtain a filing date. The application will not be examined by the Patent Office and will not result in an issued patent. However, if you file a utility application based on the provisional application within one year after filing the provisional application, the utility application can obtain the filing date of the provisional application and can result in an issued patent.

A utility application is a complete patent application that includes claims (which define the scope of the invention). A utility application will be examined by the Patent Office and, if all goes well, will result in an issued patent.

The main benefit of filing a provisional instead of a utility is cost – the filing fee paid to the Patent Office is $260 for a provisional and $1600 for a utility (lower for "small entities" and "micro entities"). The main downside of filing a provisional instead of a utility is that a provisional is not actually examined by the Patent Office and does not itself result in an issued patent.

Filing in Foreign Jurisdictions

The "absolute novelty" requirement for patent applications outside of the United States means that such foreign-filed applications must be able to claim an "effective filing date" which occurs before the invention being patented was publicly disclosed anywhere in the world. One technique for securing such a filing date is to file applications in each country before a public disclosure occurs. However this approach requires that foreign applications must be filed prior to disclosure and represents very significant up-front costs in the many tens of thousands of dollars.

The more common strategy for startups seeking foreign patent protection is to file one of three types of application in the "home" country (we are assuming that the startup is located in the United States) before a public disclosure occurs: (1) a provisional application; (2) (2) a utility ("regular") application, or (3) a Patent Cooperation Treaty (PCT) application (naming the United States) ("PCT Based US Application"). A PCT application is a placeholder application that extends the window (to

30 months after the first application filed) to file an application for all of its member countries, which currently includes all industrial nations except Taiwan. A PCT does not result in an actual issued patent, and you still would need to file applications in the US and any other desired jurisdictions within the window. These strategies can be combined, such as filing an individual application in France and Germany, but delaying the decisions about filing in other countries by filing a PCT application.

If you file a provisional application in the US, your deadline to file in foreign jurisdictions or a PCT is one year after filing of the provisional. Filing a PCT within that window will further extend the deadline to file in its member countries to 30 months after the filing date of the provisional.

If you file a utility application in the US that is not based on a provisional application, your deadline to file in foreign jurisdictions or a PCT is one year after filing of the provisional. Filing a PCT within that window will further extend the deadline to file in its member countries to 30 months after the filing date of the utility.

If you a file a PCT application from the outset, your deadline to file a utility application in the US and applications in foreign jurisdictions is 30 months after filing of the PCT.

An additional option is available in Europe throughthe European Patent Convention. The European Patent Office administers a regional patent agreement for obtaining patents through a single "European patent application" that can be extended ("nationalized") and enforced in European states that are members of the European Patent Convention. Most major countries in Europe are members of the European convention. A single examination of an application is conducted by the European Patent Office in a selected language (which can be English). Once a patentable invention is defined by the claims, a European Patent is granted and is subjected to a public opposition period. If claims survive this opposition period, the European Patent is granted and can be "nationalized" to provide patent rights in each member country designated earlier in the application, although you must pay a fee for each designated country. The European patent application has several advantages:
(1) spreading of examination costs over a larger number of countries (compared to pursuing applications in several countries simultaneously), (2) an examination conducted in English involving a single foreign patent law firm, and (3) a rigorous examination which theoretically produces a stronger patent.

Conclusion

Startups constantly need to prove themselves. They need to prove themselves to potential investors, to their audience of customers and potential customers, to their competitors, and hopefully, to potential acquirers or Wall Street itself. At each stage, patents both issued and pending can provide credibility for the company and, in some instances, real monetary value. For most startups, developing a patent portfolio is a critical investment well worth making.

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