A Patent Portfolio Development Strategy for Start-Up Companies

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Successful high technology companies recognize that a comprehensive intellectual property portfolio can be of substantial value. One key component of the intellectual property portfolio is patents. A patent is a right granted by the government that allows a patent holder to exclude others from making, using, selling, offering to sell, or importing that which is claimed in the patent, for a limited period of time.

In view of this right many companies recognize that a well-crafted patent portfolio may be used for a variety of business objectives, such as bolstering market position, protecting research and development efforts, generating revenue, and encouraging favorable cross-licensing or settlement agreements. For companies that have developed original technology, a patent provides a barrier against a competitor's entry into valued technologies or markets. Thus, many start-up companies that have developed pioneering technology are eager to obtain patent protection. However, to develop an effective patent portfolio, a start-up company should first devise a patent portfolio strategy that is aligned with the company's business objectives.

A patent portfolio strategy may vary from company to company. Large companies that have significant financial resources often pursue a strategy of procuring and maintaining a large quantity of patents. These companies often use their patent portfolios for offensive purposes, *e.g.*, generating large licensing revenues for the company. For example, IBM generates close to \$1 billion dollars a year from licensing its patent portfolio.

In contrast, for most start-up companies, developing and building a comprehensive patent portfolio can be prohibitively expensive. However, with an understanding of some basic principles of patent strategies and early planning, a start-up company can devise and execute a patent strategy to develop a cost-effective patent portfolio. For example, a start-up company can develop an effective patent portfolio by focusing on obtaining a few quality patents that cover key products and technologies, in alignment with their business objectives.

A patent strategy involves a development phase and a deployment phase. The development phase includes

evaluation of patentable technologies and procurement of patents. A deployment phase includes the competitive analysis, licensing, and litigation of patents. For most start-ups the initial focus is on the development phase. Starting in the development phase, the patent strategy identifies the key business goals of the company. Clear business goals provide a long-term blueprint to guide the development of a valuable patent portfolio.

With the goals identified, the evaluation process begins by mining and analyzing intellectual assets within the company. In this process, a company organizes and evaluates all of its intellectual assets, such as its products, services, technologies, processes, and business practices. Organizing intellectual assets involves working with key company executives to ensure that the patent strategy closely links with the company's business objectives. Often, these individuals assist with developing a budget for the patent strategy, as well as making arrangements to get access to resources for executing the patent strategy.

Organizing intellectual assets also involves gathering key company documented materials. Examples of documented materials include business plans, company procedures and policies, investor presentations, marketing presentations and publications, product specifications, technical schematics, and software programs. It may also include contractual agreements such as employment agreements, license agreements, non-disclosure and confidentiality agreements, investor agreements, and consulting agreements. Such materials provide information used to determine ownership issues and the scope of patent or other intellectual property rights that are available for the company.

Organizing intellectual assets also includes identifying and interviewing all individuals who are involved with creating or managing the company's intellectual assets. These interviews uncover undocumented intellectual assets and may be used to evaluate patent and other intellectual property issues. For example, events and dates that may prevent patentability of some intellectual assets may be identified. Likewise, co-development efforts that may indicate joint ownership of intellectual assets may also be

identified. Identifying such issues early on helps prevent wasteful expenditures and allows for effective management of potentially difficult situations.

After organizing information about the intellectual assets, each asset should be evaluated to determine how best to protect it. This evaluation includes determining whether the intellectual asset is best suited for patent protection or trade secret protection, whether it should be made available to the public domain, or whether further development is necessary. It also involves determining whether a patent will be of value when it issues, which is typically approximately 18 to 36 months after it is filed, and whether infringement of that patent would be too difficult to detect.

The evaluation phase may also provide an opportunity to determine whether obtaining protection in jurisdictions outside of the United States is prudent. International patent treaties signed by the U.S. and other countries or regions allow for deferring actual filing of patent applications outside the U.S. for up to one year after the filing of a U.S. application. Thus, planning at this early stage may include identifying potential countries or regions to file in and then begin financially preparing for the large costs associated with such filings.

The evaluation phase also provides an opportunity to determine whether a patentability or patent clearance study is necessary. Such studies are used to determine the scope of potentially available protection or whether products or processes that include or use an intellectual asset potentially infringe third-party rights. This evaluation may also involve identifying company strengths with regard to its patent portfolio as well as potential vulnerable areas where competitors and other industry players have already established patent protection.

While the evaluation phase is in progress, the company can move into the procurement phase. In the procurement phase of the patent strategy, a start-up company builds its patent portfolio to protect core technologies, processes, and business practices uncovered during the audit phase. Typically, a patent portfolio is built with a combination of crown-jewel patents, fence patents, and design-around patents.

Crown-jewel patents are often blocking patents. One or more of these patents is used to block competitors from entering a technology or product market covered by the patent. Fence patents are used to fence in, or surround, core patents, especially those of a competitor, with all conceivable improvements so the competitor has an incentive to crosslicense its patents. Design-around patents are based on innovations created to avoid infringement of a third party patent and may themselves be patentable.

For most start-ups, costs for pursuing patent protection are a concern because financial resources are limited. Hence, most start-up companies begin the procurement phase by focusing on procuring one or more crown-jewel patents. To do this, the start-up company works with a patent attorney to review the key innovations of the company's product or services as identified during the evaluation phase. The patent attorney and start-up company consider the market for the innovation in relation to the time in which the patent would typically issue. This analysis helps identify the subject matter for the crown-jewel patents.

Once the subject matter is identified, in some instances a prior art search prior to filing provisional or utility patent applications may be conducted to determine what breadth of claim coverage potentially may be available. However, a company that considers such prior art searches should first consult with the patent attorney to understand the risks associated with them so that appropriate business decisions can be made.

Next, a strategic business decision is made as to whether to file a provisional patent application or a full utility, or non provisional, patent application for the identified subject matter. A provisional patent application is ideally a robust description of the innovation, but lacks the formalities of a full utility patent application.

The provisional application is not examined by the U.S. Patent and Trademark Office ("USPTO") and becomes abandoned 12 months after filing. Within the 12 months, an applicant may choose to file one or more utility applications based on the subject matter disclosed in the provisional application, and therefore, obtaining the benefit of the provisional application filing date. However, the later filed utility application must be fully supported by the disclosure of the provisional application in order to claim the benefit of its earlier filing date. Under U.S. patent law, this means the provisional application must satisfy the requirements of written description, enablement, and best mode, as is required for the utility application.

If the provisional application is filed with sufficient completeness to support the claims of subsequently filed utility applications, the provisional application provides a number of benefits. First, as previously discussed, one

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or more utility applications may claim the benefit of the provisional patent application filing date. The early filing date may not only protect the crown jewel subject matter, but may also protect some critical surrounding subject matter, hence increasing the overall value of the patent portfolio. Second, the provisional application provides an earlier effective prior art date against others who may be filing patent applications on similar inventions.

Third, provisional patent application filings costs are currently \$80 to \$160 versus \$370 to \$740 for a full utility application. Fourth, inventors often take it upon themselves to draft the core of a provisional application with the guidance of a patent attorney and request that the patent attorney spend time simply to review the application to advise on the legal requirements and potential pitfalls. This means that the attorney fees for a provisional patent application may be substantially less than attorney fees associated with preparing a full utility application.

Fifth, the provisional patent application precludes loss of patent rights resulting from activity and public disclosures related to the target inventions. For example, almost every country except the U.S. has an absolute novelty requirement with regard to patent rights. That is, in these countries, any public disclosure of the target invention prior to filing a patent application results in a loss of patent rights. For many start-ups this can be somewhat disconcerting. On the one hand, the start-up may want to preserve the right to pursue patent protection outside of the U.S. On the other hand, immediate business opportunities and time demands often conflict with the timely preparation and filing of a utility patent application. However, through international treaties, most countries will recognize a filing date of a provisional application filed in the U.S. Thus, the applicant may be able to file for a provisional application and convert it to a utility application that can be filed in the U.S. and other treaty countries within 12 months.

Although the provisional application provides a cost-effective tool for creating a patent portfolio, filing a provisional application does not end the portfolio development process. Once the provisional application is filed, and when finances and time permit, the company should be diligent in filing utility applications that may claim the benefit of the provisional application filing date. This is true for a number of reasons.

First, the provisional application is not examined and will go abandoned 12 months after it is filed. Therefore, the filing of the provisional application provides no more than a filing

date placeholder for the subject matter it discloses. Second, the utility application costs more than the provisional applications to prepare and file. Thus, a company must adequately budget and plan for this expense. Third, as time passes the time available for patent matters may become more difficult in view of product cycles, marketing launches, and sales events. Hence, budgeting time for planning and reviewing filings of subsequent utility applications based on a provisional application becomes important. Fourth, products and technologies continually evolve and change, often soon after the filing of a provisional application. Therefore, a company must continually revisit their patent portfolio and strategy to reassess whether the provisional application can provide sufficient protection in view of further development.

Over time, companies that value their intellectual assets set aside time, money and resources to further enhance their patent portfolio. To do this a company may move to the deployment phase. In the deployment phase, the company begins the competitive analysis process to study industry trends and technology directions, especially those of present and potential competitors. The company may also evaluate patent portfolios of competitors and other industry players.

Also in the deployment phase, the company may incorporate the licensing process. Here, the company determines whether to license or acquire patents from others, particularly where the patent portfolio is lacking protection and is vulnerable to a third-party patent portfolio. Alternatively, in the licensing process the company determines whether to license or cross-license its patent portfolio to third parties. The deployment phase may also include the litigation process. Here, the company determines whether to assert patents in a lawsuit against third party infringers.

In summary, for most start-up companies, devising a patent portfolio development strategy early on can be a wise investment to help the company develop and build a strong foundational asset on which to grow. This investment will likely reward the company with positive returns for years to come.

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