The Benefits And Costs Of Patent Protection

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Patents help insure that the payoff from R&D and a business's competitive advantage are maximized. Patents are also valuable for generating interest and investment in new and growing businesses. However, because patent protection can involve significant expense, an appropriate patent filing strategy that balances the speculative value of an invention with the costs of patent filings is required.

This is the first in a series of articles that are intended to educate readers about issues relating to patent protection.

Les brevets permettent d'assurer la compétitivité d'une entreprise sur le marché et de monnayer ses efforts de recherche et de développement. Les brevets servent aussi à stimuler l'intérêt et les investissements dans un domaine en plein développement. Toutefois, comme la protection par brevet demande des investissements significatifs, il est nécessaire d'avoir une stratégie appropriée pour la protection de la propriété intellectuelle qui équilibre la valeur spéculative d'une invention et les coûts d'obtention d'un brevet.

Cet article est le premier d'une série visant la sensibilisation des lecteurs quant à la protection de la propriété intellectuelle par brevets.

1. Introduction

Obtaining and maintaining patents to protect important technology can offer considerable advantages but may also involve significant expenses. It is therefore important for any high-tech business to attempt to weigh and balance the costs and benefits associated with patent protection.

2. What is a Patent

A patent is a right granted by the government of a country providing the patent owner with the exclusive right to commercially exploit an invention within that country. In most countries, to be patentable, an invention must be new and unobvious compared to information which was already publicly available at the time an application for a patent is filed (in the United States, the relevant dates are somewhat more complex). Canada and the U.S., unlike most other countries, provide a one year grace period from the date of the first public disclosure (or sale / offer for sale in the U.S.) of an invention as long as the disclosure (or sale) originated, directly or indirectly, from the inventor or owner of the invention.

To obtain a patent for an invention, the inventor or owner of the invention must apply for a patent by submitting an application to the patent office. The patent application consists of a detailed written description of how to build and/or work the invention and a set of claims that define in words what subject matter is sought to be protected. The claims of a patent define the scope of the exclusive right, and, as such, reflect the strength and value of the patent. A patent application (and in particular the claims) is usually prepared by a registered patent agent on the owner or inventor's behalf.

The patent application undergoes an examination in the patent office of each country in which the application is filed. The patent office usually conducts a search for publications (especially prior patents or patent applications) that are relevant to the invention claimed in the application and then reports on whether the invention described in the claims of the application is new and unobvious over those prior publications. The patent office then typically issues one or more examination reports to which the applicant (or more typically the applicant's patent agent) is given the opportunity to make arguments and amendments in response.

If and when a patent office concludes that the application complies with all requirements, the application is allowed and a patent later issues in that country. Some countries have entered into agreements with other countries to set up a regional patent office which grants a regional patent (e.g., a European patent). However, in most cases the regional patent must still be registered or validated individually in each country in which protection is desired.

Once granted, a patent is usually presumed valid throughout its term of protection (in most countries this term is now 20 years from the date the application was filed). However, the validity of a patent may be brought into question in subsequent proceedings before a court or in a patent office.

3. The Benefits of Patent Protection

The exclusive right to commercially exploit an invention provides the patent owner with the legal right to stop others from making, using, or selling the patented (i.e. claimed) invention and the right to collect damages for any such unlawful activity - so long as the patent (i.e. the claims) is not found invalid. Obtaining this exclusive right is the fundamental motivation for seeking a patent and affords several benefits to the patent owner.

Most inventions involve considerable research and development (R&D) investment and efforts. Patenting an invention serves to prevent competitors from simply copying or reverse engineering the invention and thereby appropriating those R&D efforts for their own benefit. Furthermore, even if a competitor independently develops the same invention at a later stage, the patent may be used to stop the competitor's entry into the market. Thus, a patent helps insure that the payoff from R&D and the patent owner's competitive advantage are maximized.

Patents are also valuable for generating interest and investment in new and growing businesses. This is particularly important for companies attempting to establish themselves in high-tech industries. Start-up companies are often based on the development of a specific new, sometimes potentially ground-breaking, technology. Without securing rights for their technology, these companies may find themselves unable to obtain sufficient resources to bring that technology to market.

Patents may also be licensed to other parties allowing these parties to exploit the invention in exchange for royalty payments. In some situations, where claims of patent infringement have been made by one patent owner against another, the latter patent owner may be able to rely on its patent rights to launch a counterclaim for patent infringement. This type of dispute is often settled with some form of cross licensing in which each party licenses the other under its patents, thereby avoiding costly litigation.

Finally, a patent serves as a readily accessible public record of the innovative developments made and owned by the patent owner. The existence of a patent may serve as a warning to competitors to stay clear of a protected technology. In addition, a patent stakes out a patentee's technological territory, precluding others who develop technology at a later stage from attempting to claim or patent that technology as their own.

4. The Costs of Patent Protection

The costs of retaining a patent agent to draft and prepare a patent application for a high-tech invention typically fall within the $4,000-$20,000 range depending on the nature and complexity of the invention and on the sufficiency of the information provided to the patent agent. Most patent professionals charge on the basis of the time necessary to prepare the application, and so the cost will fall outside of this range in certain cases. While the preparation of a patent application is the expense first incurred by the patent applicant, where patent protection is sought in several countries, that expense becomes less significant in the long run.

As discussed above, patent protection must eventually be sought in each country in which such protection is desired, even if this is only a simple matter of registration. Therefore, one of the first issues which should be generally considered is in which countries to seek patents. The most important factor is usually cost, but other issues often considered include market size, commercial viability of the invention in that country, whether business is currently conducted in that county, whether it is anticipated that business will be conducted in that country in the future, the existence of competitors in that country, the respect given to patent rights in that country, and the effectiveness of patent enforcement mechanisms in that country.

In each country, most or all of the following fees will arise in connection with a patent application: a filing fee, an examination fee, yearly maintenance fees for keeping an application in force, and an issue fee for the granting of a patent. Yearly maintenance fees usually must also be payed to keep an issued patent in force throughout the available term of protection. These fees vary considerably from country to country and are generally higher in the case of a regional patent office covering several countries. Other expenses associated with the obtaining of a patent include the preparation of arguments and amendments when responding to examination reports, the preparation of formal drawings which meet specific patent office standards (this must generally only be done once and the cost will depend on the number and detail of the drawings in the application), and the preparation of translations of applications and other documents into different languages (when necessary). Furthermore, for applications filed by Canadian applicants outside of Canada and the U.S., a registered patent agent in that country must be appointed to handle the application. These foreign patent agents, of course, charge fees for their services.

For many Canadian businesses whose activities are restricted to North America, seeking patents in the U.S and Canada is often sufficient. Indeed, given the importance of these markets, especially the U.S., the fees charged by the Canadian and U.S. patent offices are very reasonable compared to those in many countries. An additional benefit afforded to Canadian applicants is that a Canadian patent agent, when appropriately registered, is entitled to represent such applicants before the U.S. as well as the Canadian patent offices. This often eliminates the need for patent agents in more than one country to become involved with the applications.

5. Delaying the costs

Generally, to be patentable an invention must be new and unobvious compared to information which was already publicly available at the time an application is filed (in the U.S. the relevant dates for comparison may differ somewhat). As a result, a patent application should be filed as soon as possible after an invention is conceived or made. Unfortunately, the value of an invention at the time of such an initial filing is almost entirely speculative. However, the inventor or owner of an invention is not required to file applications immediately in every country in which patent protection is desired. Two important international agreements, the Paris Convention and the Patent Cooperation Treaty (PCT), allow the decision on where to seek patent protection to be delayed in most cases.

After a first or originating patent application is filed in a Paris Convention member country, applications for the same invention filed in other member countries within one year may, for most purposes, claim the benefit of the originating patent application's filing date (the “priority date”). This provides a patent applicant with an additional year, after a first application is filed, to assess the commercial viability of an invention before committing to file applications in other countries.

An international or PCT application is a single application, made to the World Intellectual Property Organization (WIPO), which can designate any number of PCT member countries. A patent does not issue from a PCT application. Rather, the PCT application must be converted into a “national” application in each desired country before the expiry of certain time limits. A PCT application may be filed as an originating application or it may claim priority from an originating application under the Paris Convention. An international search for information relevant to the invention in the PCT application is carried out. The PCT application can be converted into a national patent application in a designated country before the expiry of 20 months from the PCT filing date or the priority filing date (if a priority claim has been made). A PCT applicant may further elect that an international examination be carried out. Most, but not all, member countries allow for this election, and when this election is made the deadline for converting the PCT application into a national application in that country is extended to 30 months from the filing or priority date.

Although a patent cannot issue from a PCT application, the international search results and the international examination results (where applicable) are normally relied upon, to some extent, by national patent offices after the PCT application is converted into national applications. As a result, the application process may be faster and less contentious before these national patent offices. Furthermore, the filing of a PCT application allows the decision on whether to seek patent protection in most countries to be put off for another year and a half - i.e. 30 months from the first filing of an application for an invention (in some countries this decision may be delayed even longer). The extra cost of filing a PCT application is often worthwhile for these reasons, especially where the applicant probably intends to file applications outside of the U.S. and Canada.

While most countries, including virtually all industrialized nations, are members of both the PCT and the Paris Convention, some countries such as Taiwan are not. Therefore, when desired, applications should be filed directly in non-member countries as early as possible and before any public disclosure of the invention is made.

In today's world, technological innovation and patent protection go hand in hand. Patents have become a required asset for most high-tech businesses. With reasonable expectations on where to seek patent coverage and with a proper understanding of the potential benefits and costs involved, one can follow an appropriate patent filing strategy that balances the speculative value of an invention with the costs of multiple patent filings.

This article is intended to provide general information regarding intellectual property issues and should not be regarded or relied upon as legal advice.

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