

Reasons for Patent Protection and Cost-effective Patent Filing Options for SMEs

Natalie Raffoul and Art Brion

“The problem for ... Open Source developers ... is that their very success in constructing a commercially viable Internet has now spawned an on-line patenting gold rush of epic proportions. Small start-ups and giant corporations alike are racing to stake claims to proprietary positions along the booming e-commerce frontier.”

Kevin G. Rivette and David Kline

Rembrandts in the Attic: Unlocking the Hidden Value of Patents

Many innovative small and medium enterprises (SMEs) do not seek patent protection for their innovations, either because they are skeptical about the perceived benefits or wary of the perceived costs. However, by failing to protect their intellectual property with patents, SMEs leave themselves exposed to attack by other patent holders. This article explores arguments for patent protection as well as filing options that can protract the patenting process while simultaneously reducing patenting costs. By choosing their patent application filings wisely, SMEs can keep their patenting options open for as long as possible while delaying costs.

Introduction

Many SMEs turn their noses up at patents. A steady refrain of "we don't need them" or "we don't believe in them" emanates from such enterprises. Patents have also been accused of allegedly stifling rather than encouraging progress or competition. While there may be some truth to this argument, it should be noted that patents are, in the final analysis, merely an extension of the values of our capitalist society where private property is at the core of all that flows in commerce. Without private property and the laws to protect it, we are left to the harsh law of the jungle where property of any type, including intellectual property, can be taken with impunity. Reverse engineering has never been faster or cheaper. Those who think that their great idea cannot be replicated for a cheaper price by their competitor need to rethink their strategy.

Patents exist to protect a specific type of property – a unique, non-tangible, yet very valuable type of property: intellectual property. Intellectual property, especially the type protected by patents, has the interesting characteristic of being able to be simultaneously pos-

sessed by multiple people. Regular physical property can only be physically possessed by one person at a time – if person A is in possession of a chair, then person B cannot be in possession of the same chair at the same time. However, with intellectual property, person A *and* person B can be *simultaneously* in possession of the same property. As an example, if person A invents a new type of mousetrap and tells person B about that new mousetrap, both A and B are now both in possession of the *idea* of the new mousetrap. Both A and B can now create that new mousetrap, create a business around the new mousetrap, and, potentially, change the world. While a mousetrap may not change the world, one merely has to remember Alexander Graham Bell, the telephone, and the term “Ma Bell” to see how much of an impact a single idea can have.

If someone has an idea that can be turned into a profitable business, it behooves them to protect that idea, especially if they intend to start such a business. For this reason, high-tech startups should use patents and the protection they afford. For most high-tech startups, the company's starting value is tied to the idea or ideas that gave birth to the company. In some cases, the idea is

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the company's *raison d'être* and the more that idea is considered valuable, the higher is the potential valuation of the company. Concomitantly, better protection around that idea may also increase the viability of the company. Better protection provides a stronger deterrent against copycats stealing the idea since this protection can translate into dire consequences for the copycat. A patent portfolio surrounding that idea can therefore add *value* to the startup. In some cases, a patent portfolio can actually *multiply* a company's value – the value of a company's physical assets and the value of its personnel may actually be dwarfed by the value of its patent portfolio. It is partially for this reason that venture capitalists and angel investors usually look favourably on companies that have, at the very least, attempted to protect their ideas.

In addition to adding value to a company, one other reason for seeking patent protection relates to what can be done with patents. A patent (or a patent application) is an asset for a company and it should be used as such. Essentially, an asset can be used as a weapon of corporate warfare – it can be used to launch an attack on a competitor, it can degrade a competitor's market position, and it can be used to protect one's assets while generating revenues. Alternatively, an asset can be used in a more benign manner by generating that all-important revenue stream.

Corporate history is replete with examples of corporate warfare between large companies. Large companies such as Apple, Google, and Microsoft have long been shrill advocates of the current patent regime as, time and again, they have benefited from the advantages afforded by patents. As an important part of a company's arsenal in corporate warfare, patents have been used to deny access to important markets, disrupt business cycles, and generate large amounts of licensing revenue.

Examples of the use of patents to cut off access to markets are legion but some of the most eye-catching examples can be seen in the bruising corporate war between Apple and Samsung as that war progresses across various markets. As may be well-known, Apple has alleged infringement by Samsung of some of its patents (http://wikipedia.org/wiki/Apple_Inc_litigation). Samsung has recently been denied access, albeit temporarily, to the Australian market for its Galaxy products by an injunction obtained by Apple. Perhaps more importantly, Apple has been able to permanently deny Samsung access to the German market for that same product.

While patents may be used as a market-denial weapon, it may also be used to effectively shut down a competitor's channel of business. In fact, a patent need not even be perfect to do so - it merely needs to be issued. One example of this comes from the infamous "one-click" patent from Amazon.com (http://wikipedia.org/wiki/Amazon.com_controversies). In 1999, Amazon alleged infringement of its "one-click" patent by Barnes & Noble. Amazon.com was able to obtain an injunction to prevent consumers from ordering through Barnes & Noble's website during the lucrative Christmas season using a similar one-click system. Even though this injunction against Barnes & Noble was eventually overturned after the Christmas season, substantial disruption to Barnes & Noble's Christmas business was caused by Amazon.com's brilliant, if ruthless, use of its patent. Even though a substantial portion of the coverage of the "one-click" patent was subsequently restricted, Amazon.com had, arguably, received its money's worth out of its patent.

From the above, one may get the impression that patents are the exclusive purview of the well-heeled or the well-funded. Such is not the case – smaller companies and startups may also take advantage of the patent regime to protect their inventions and generate large sums of money. The small Toronto company i4i took on the behemoth that is Microsoft and won (<http://wikipedia.org/wiki/I4i>). i4i was a small startup in 1993 when it was working in the XML space. Microsoft allegedly misappropriated i4i's XML technology and, in 2007, i4i sued Microsoft for patent infringement. i4i won a US\$290 million judgment against Microsoft. As was expected, Microsoft pursued the case all the way to the US Supreme Court and, unfortunately for Microsoft, lost all of its appeals. If i4i's example stands for anything, it shows that the patent system works, even for small companies and that infringers should beware.

As another example of small companies taking advantage of their patent portfolios, there are companies which, it would seem, sue others on patents for a living. These companies, notable examples being the Ottawa-based MOSAID (<http://mosaid.com>) and Wi-LAN (<http://wi-lan.com>), obtain large patent portfolios for use as virtual clubs against infringers. These companies buy up large patent portfolios or create intellectual property with a view to licensing such intellectual property for large amounts of cash. As an example of what can be achieved by a large patent portfolio and the services of aggressive US patent lawyers, for the 3rd

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quarter of 2008, MOSAID had licensing revenues of \$14 million with a projected \$55 million in licensing revenues for all of 2008. These numbers are quite impressive for a company that, in 2010, only had 47 employees and did not manufacture anything.

Regardless of the above examples, patents are not necessarily only tools of corporate warfare. They can also be used to generate income without threat of legal action hovering in the background. Patents can be sold, licensed, transferred, and even parcelled out, all for sometimes enormous amounts of money.

Patents can be used to generate income for a company, even after that company has been considered dead or bankrupt. Nearly everyone has heard of Nortel Networks and the famous auction of its patent portfolio. Even though Nortel was considered a dead company, the auction raised \$4.5 billion from the sale of its patents (<http://wikipedia.org/wiki/Nortel>). As well, quite a few dead companies from the telecom boom days of the late 1990s and early 2000s seemingly live on through their still very much alive patent portfolios. Patents and their value can therefore even survive the demise of the company that generated them. In some cases, the patent portfolio may be the only surviving asset of defunct companies. These patent portfolios may then be used by those who sunk their money into those companies, as a means of recovering their investment.

From the above, patents can therefore be used to attack competitors, disrupt their operations, and generate large revenues. For at least these reasons, protecting one's innovations through patents is not only a good idea but may actually be required for some high technology startups.

Patents May Be Necessary

Even given the above, there are those who still opine that patents are too expensive, that they do not have the deep pockets to defend their patents, or that they do not believe in the patent system. To these naysayers it must be pointed out that, given today's business climate, they may not have an option regarding patents. For at least some of the reasons given above, most venture capitalists (VCs) require startups to have some sort of patent protection before any investment is made in a company. Once VCs enter the picture, the cost of patenting can usually be off-loaded to the VCs or, in some instances, be paid for by government funding. If a "patent pending" line in a corporate report is required for a

VC investment, it can be argued that the money spent to obtain the "patent pending" is money well spent.

Regarding the defence of patents and the deep pockets required to fund such efforts, startup executives need to consider a longer view with respect to their exit strategy. If a startup desires to be bought out by a larger entity, the costs for the defense of the patents (and in many cases the downstream costs for obtaining those patents) will very often fall on that larger entity. Alternatively, instead of waiting for a buyout from a large company, a startup with a suitable patent portfolio may be able to recruit a licensing firm to pursue infringers. These companies, whose business is primarily the licensing of intellectual property, may take on such a task in exchange for a share of portfolio licensing revenues.

Finally, to those who say that they simply do not believe in the patent regime, it must be pointed out that, unless there is profit to be had, the business world is concerned with how things *are* and not how things are *supposed* to be. Like it or not, the presence of megacorporations with burgeoning patent portfolios has made it almost a requirement for small companies to protect their market share by any means possible. Unfortunately for the purists and the high-minded, patents provide one of those means. One merely has to look at the example of i4i and consider what would have happened to that company if it did not have its patent to bludgeon Microsoft with.

Patents as Assets

As noted above, patents are assets to a company and they should be used as such. Used properly, a patent portfolio can be used to obtain important tools for a company. Complementary technology, funding, and even more assets can be had by judicious use of a patent portfolio.

Since patents are assets for a company, they should be leveraged to obtain what that company (especially if it is a startup), may need at a given time. Consideration should be given to licensing or selling a patent for a technology that may not be key to the company's survival. While licensing the technology would be ideal, a sale where the seller retains a license from the purchaser for the technology can still be quite useful. Other patented technologies that are not actively being used by a company may also be candidates for a licensing scenario.

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In a licensing scenario, a company may, instead of receiving licensing revenues from its licensees, seek a license to technology controlled by its licensee. Such a deal may open up new avenues of development, research, and even products for a company. This cross-licensing option may be of particular use for companies that are in need of other technologies to improve their product or service offerings. Of course, depending on the situation, a combined licensing revenue and technology cross-license may also be possible.

Leveraging a patent portfolio may also be accomplished by partnering with a patent licensing firm. Use of a patent licensing firm with an aggressive enforcement strategy may yield useful results, especially for a company whose technology forms the basis for spin-off technologies. Depending on the circumstances, the company may wish to sell its inactive patents to the licensing firm or the company may use the licensing firm as a proxy for their enforcement.

It should be noted that while the above discussion mentions patents, patent applications are also assets and, again depending on the circumstances, may be exploited much like an issued patent, albeit to a lesser extent.

Obtaining Patents

Much like other creatures of the law, a patent application must be carefully considered before proceeding with the process. For startups, this careful consideration may be even more important given that resources tend to be scarce for such companies. What follows are some suggestions, as well as a patent process, that is not only strategic but should also delay costs while simultaneously reducing the up-front patenting costs.

Note that, while the suggestions below are tailored to delay patenting costs, this approach may not work for all companies. Each company's situation is different and what may work for one company may not work with another. Startups should therefore work closely with their patent counsel to determine which strategies work best with their business goals, available resources, and timelines. To this end, a startup's patent counsel should be tightly integrated into the company's structure so that the IP strategy can, from the start, be crafted into a potential income stream and not arise as a mere afterthought.

A patentability search and opinion

Those desiring a patent may want to consider a "patentability prior art search" for their invention. Knowing

the patent landscape in the particular field of invention can be important for a number of reasons. It might be discovered that the invention reads on another patent and, as such, there might be a need to assess a potential infringement or to consider taking a licence from the prior art patent holder. One might also discover whether there are prior art patents/applications that anticipate the invention or render the invention obvious. This step is very important in pre-empting any surprises that might arise during the examination of the patent application(s).

Drafting the patent application

Once it has been determined that the invention is likely patentable, a draft patent application can then be prepared. Since the costs of drafting a patent application vary widely among patent agents and firms, a survey of available options prior to selecting a firm or a patent agent/attorney is always recommended. It is also highly advisable to select a patent agent/attorney with a technical background that relates to the field of invention.

In addition to their technical background, it is also highly advisable to select a patent agent/attorney who understands the unique needs and situation of a startup. A business-aware patent agent/attorney who understands the company can help craft an overall strategy that takes into account, not just the technology and the law, but also what is possible given the available resources and long-term goals of the company.

Filing a first patent application and the Paris Convention Treaty

After the application has been drafted, a decision must be made as to where to file the patent application. This decision must be made after careful consultation with the chosen patent agent/attorney and after careful consideration of the business goals, available budget, and projected market.

Note that there exists the Paris Convention Treaty to which most countries are signatory. This treaty enables a patent applicant to file a first application in one of the signatory countries and then file subsequent patent applications in other jurisdictions up to one year after the initial filing. This one year period is known as the *priority year*.

A US provisional application

One of the more popular options for start-up companies and those for whom up-front costs are an issue is a US provisional patent application. The government filing costs can be quite minimal and the paperwork required is also minimal. While the application will need to be re-filed within a year, it does allow the applicant

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to advertise that they are “US patent pending” for a relatively low cost. A US provisional application qualifies as a patent application under the Paris Convention and, as such, a US provisional application can be the application upon which subsequent applications are based.

An international patent application through the Patent Cooperation Treaty (PCT)

At the end of the priority year, a patent applicant may be contemplating more than just a few countries or regions in which to file patent applications. The Patent Cooperation Treaty (PCT) may be used as an international patent filing deferral strategy. The PCT permits an applicant to delay filing in any country or region that is signatory to the PCT for up to 42 months from the earliest filing date (i.e., the priority date or the PCT international filing date). While the PCT international patent application does not result in a world patent, the PCT process does involve an International Search Authority (ISA) and an International Preliminary Examining Authority (IPEA), such as the one at the Canadian Intellectual Property Office. These authorities perform a search for prior art relating to the invention as well as a substantive examination of the patent application. The examination gives the patentee an early indication as to whether the invention, as defined in the claims in the application, is novel and non-obvious in light of the prior art found.

European Patent Office (EPO) applications

Regional patent offices, such as the EPO, can also provide a significant cost savings. If patent protection is considered in three or more European countries, the EPO is a more cost-effective, streamlined approach to the patent process in Europe. The EPO performs a binding substantive examination of the European patent application and the resulting European Patent only needs to be validated, for a small fee, in the various European countries in which the patentee seeks patent protection. The EPO can be entered through the PCT process.

Conclusion

When used properly, patents can provide a useful means to obtain technology, funding, and other assets that a company may be in need of. Historically, they have been used as corporate weapons and, in quite a few cases, have been quite successful in denying markets and opportunities to competitors. As well, patents

have been used to add value to a company whether it be through the sale or the licensing of a company’s patent portfolio. Obtaining patent protection need not be overly expensive – an effective patent filing strategy that leverages the existing international patent treaties can defer patenting costs.

About the Authors

Natalie Raffoul is a founding partner of CLANCY P.C. + BRION RAFFOUL. As a registered patent agent and lawyer with a background in electrical engineering, she has extensive experience in drafting patent applications for technologies including: electronics, wireless and optical communications and networking, telecommunications switching, optical components and manufacturing processes, optical fibre manufacturing processes, satellite components, fuel cell technologies, security devices and software processes for supply chain management. Natalie is also experienced in filing and prosecuting Canadian, U.S., and PCT international patent applications. She provides advice to her clients, in English and in French, on worldwide patent filing strategies and portfolio management. She is also a frequent speaker on intellectual property matters.

Art Brion is a computer engineer, lawyer, and a U.S. and Canadian patent agent. Since 1998, he has assisted clients ranging from multinational corporations to high-tech startup companies to lone inventors. Prior to founding CLANCY P.C. + BRION RAFFOUL, Art practiced with two IP boutique firms in Ottawa. His practice centers on not just the drafting and prosecution of patent applications worldwide but also on providing advice regarding portfolio management and worldwide patent filing strategies. He also provides advice on intellectual property mining and licensing strategies. Art’s fields of specialization include software/Internet-based technologies, wireless technologies, communications and computer and networking and related systems, optics/electro-optic communication systems, cryptography/encryption based technologies, semiconductors and business method systems. A former Editor-in-Chief of the UNB Law Journal, he enjoys the thrust and parry of patent prosecution as it mirrors one of his main preoccupations: fencing.