Developing a Patent Strategy

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Developing a Strong Patent Strategy

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Protect and Respect: Two Steps toward Strategic Patent Management

In recent years, enough has been written about management of intellectual property to fill bookshelves. My experience confirms the main lesson of these books, which boils down to this: organizations need to cut through the complexity of intellectual property by coming up with a strategic plan to protect their own assets and respect the rights of others. Before embarking on the path of strategic management, a leader must decide which way to go.

The strategic planning process is always as follows:

- Assess internal resources.
- Evaluate the competitive market.
- Define the organization’s goals.
- Form a simple, long-range plan consistent with resources, competition, and goals.
- Implement the plan.

This process sounds obvious, but it never ceases to amaze me how many sophisticated people skip some or all of these steps.

The strategic plan can be organized into two parts: (1) protecting the enterprise’s intellectual property assets, to maximize their value; and (2) respecting the intellectual property rights of others (or defending against them), to avoid disruption or liability. A fully integrated plan must cover all types of intellectual property — trade secrets, trademarks, copyrights, and patents — but for brevity, the following discussion is limited to patents.

For a corporation, the strategy generally comes down to finding the best way to create value, through increasing revenues and decreasing costs. We also do a lot of work with nonprofit groups like universities, the National Institutes of Health, and various types of research institutions that are not in business strictly to make money. They use the patent system for other purposes, such as technology dissemination, and their strategy formation is sometimes even more challenging.
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The First Meeting

The first time I sit down with a client, I like to do some type of intellectual property audit or portfolio evaluation. The idea is to get a comprehensive overview of what the client is working on and what the competition is doing. Those are the key issues. Then I want to know all the patents they have pending and issued. I want to know who is responsible for making decisions on what to file and maintain, and who is in charge of the research and development operation. I want to know if there are any licenses in place or under negotiation, or are there any disputes or litigation going on. I also ask about all related intellectual property rights, in trade secrets, trademarks, and copyright. Finally, I find out what the strategic plan is. If there is none, I try to guide the client toward forming one.

Protecting Patent Rights

Protecting patent rights involves deciding whether to pursue patent protection for a given invention, and how to pursue it economically. This includes deciding whether to maintain patent protection, expand it, or abandon it. Staffing the process of patent protection, internally and externally, demands a huge amount of attention and resources.

Pursuing Patent Protection

My advice to clients pursuing patent protection is that they need to have the inventor write a full, detailed written disclosure of the invention, including description of all methods, devices, and compounds, with examples. They should provide any information they have about the existing technology, and they should detail exactly how they anticipate making money using the invention. If clients do not have an adequate invention disclosure questionnaire, I send them my form to ensure all relevant information is collected in one place, efficiently. The invention disclosure is a crucial tool for predicting what the commercial significance is likely to be and what is already known about the technology (the prior art). Without an invention disclosure, it is difficult to make a strategic assessment of what kind of patent coverage can be obtained, and whether it will be valuable. Only with that information can an intelligent decision be made as to whether to file a
patent application, and what to do with it once it is filed and issued. For example, a patent application could be handled differently if it is intended as a tool to block competitors, for licensing, to hold for future development, or for sale.

Another advantage of an invention disclosure is that it avoids many annoying and expensive problems that can arise during patent preparation and prosecution, such as confusion about who the inventors are, whether there were any prior public disclosures of the invention, and even such seemingly trivial matters as a lack of information about addresses and citizenship.

Maintaining Patent Protection

Generally, the best overarching philosophy for pursuing patent protection is to preserve the maximum scope of rights for the longest period of time at the minimum cost. Under this strategy, costs are postponed until the business prospects become clearer, and a no-go decision can be made at any stage for any given country, thus conserving funds. At the same time, rights are preserved, and if the business prospects look positive, or if a competitor is found to be infringing, then the organization can pursue a patent aggressively to obtain issuance in a given country. In one example of this approach, a provisional patent application is filed at the beginning of year one. At the end of year one, an international patent application is filed under the Patent Cooperation Treaty (PCT). Two and a half years from the original filing date, national applications are filed in the United States and those foreign countries in which the invention appears to be valuable. The costs escalate dramatically throughout this process. A provisional application may cost $5,000 to $20,000. The PCT application may cost an additional $5,000 to $20,000. Filing national applications may cost $5,000 to $10,000 each, and there may be five, ten, or more of them. Prosecuting each of the applications can be delayed and done slowly, postponing expenses, or it can be pursued early and aggressively, at additional or earlier cost. Annuities in each country rise from a few hundred dollars per year up to thousands of dollars for each patent application. At each point, there is a decision to be made as to whether it is worth preserving the rights at the
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given cost. As new inventions are made, new provisional applications can be filed, and the process continues.

In a noteworthy minority of cases, the strategy is different. If there is an immediate market or a close competitor, it may be best to move quickly with parallel prosecution in many countries, to push the issuing a patent quickly. A competent patent attorney knows tactics for preserving rights for a long time, moving slowly or quickly, perfecting rights by issuing patents quickly. It is up to the inventor and business leader to decide the strategy, and the practitioner will then choose the right tactics to use.

Frequently, inertia and the “arms race” desire to have many patents drives an organization toward filing a new application whenever a disclosure is presented. Also, once an initial patent filing has been made, it is hard for somebody to take responsibility for the decision not to maintain a patent application.

A lot of money can be saved in decisions about where foreign applications should be filed. Organizations typically choose three to ten countries, which may cost $10,000 to $60,000 just for the filings, with at least that much again through the lifecycle of the patent. Some companies have a list of countries where they always file, regardless of the technology. Others decide ad hoc. But there is rarely any inquiry into patentability or marketability in a particular country. It amazes me how little effort is put into this crucial and expensive decision. For these reasons, I recommend a routine patent portfolio review, when decisions can be made for all patents at once, so the priorities and budget may be aligned. Certain applications can be pruned, or at least put “on probation” to be killed in the next meeting, unless a compelling case is made to retain them. Even a weak patent application should sometimes be maintained, so the technology can be marked as “patent pending,” which serves as a bluff that creates doubt in the mind of competitors.

Understanding the Cost Component

The cost of describing an invention in detail in a patent application is usually quite high. Strategic management can reduce these costs.
For example, the reason it is cheaper for some patents than others is because there is less to describe. This is analogous to building a house. If you need a 500-square-foot addition on your house, you might get several different bids that might range 20 percent. If you were going to build a 1,000-square-foot addition, the cost is going to be a lot more, no matter what the range of the bids is. The way to economize patent costs is by deciding what to protect, and then describing it. Often, the inventor and client has no strategic focus on the key aspects of the invention, and we end up having to write everything the inventor thinks of. This is just as inefficient as building the 1,000-square-foot addition when you are really only going to use 500 square feet of the space. You pay for all the extra work, even though you will not use it.

Another way to control costs is to have the technical people (inventors) do as much of the work as possible, instead of patent attorneys, who work at a much more expensive rate, whether in-house or outside. The best bet is to let the patent attorneys concentrate on writing claims and expanding the disclosure.

**Staffing for Patent Protection: Three Legs of a Stool**

Experts in staffing and personnel issues would agree that to manage patents, you need to bring together people with three types of expertise: patent attorneys or agents, who understand the legal complexities, inventors and research directors, who understand the science and technology, and businesspeople, who can define the overall goal and strategy. It takes a combination of people to address issues such as whether to file, what to file, and whether to maintain a patent or application. An intelligent strategy combines the three legs of the stool: the technical leg, the legal leg, and the business leg. I have never met anyone that is an expert in all three of those areas. Exceptional people are experts in two of them and may be competent in the third. Talented people are experts in one area, but literate in all three. Most people have at least one of the areas where they are not even literate. Therefore, a leader needs to assemble a team with an optimal combination of literacy and expertise in law, science, and business. Internal cross-training is also advisable. For example, the scientist can learn how to read patent claims, the lawyer can learn the financial demands of the company, and the
businessperson can learn how the invention is technically distinct from the prior art. Ideally, as mentioned above, there should be some sort of an intellectual property committee that gets together to review all patent management decisions on a monthly or quarterly basis.

My main experience is with how companies staff the legal function. Hiring outside patent counsel is probably the most expensive temporary approach, but has the great advantage of flexibility and special expertise. Hiring in-house counsel is probably the most expensive long-term approach. The worst scenario is to have an outside counsel with nobody coordinating or supervising in-house. The options differ from organization to organization, from small companies with either nobody or one or two patent people in-house, all the way up to Fortune 50 companies that have a hundred patent attorneys in-house. In any case, the objective is to have the right mix of people, with a clear responsibilities and division of labor.

Who’s the Boss?

To make the patenting process work, there must be leadership from one or more chief officers. The chief executive needs to give overall guidance, and the chief legal, research, technology, business development, financial, and/or operations officers need to be involved. In universities and research institutions, there is generally a centralized system with an intellectual property or technology transfer office that handles all decisions about what to file, how to license, and so on. Larger corporations may have a single patent counsel that coordinates everything, or they may have a decentralized system where each division has some authority to make its own patenting decisions. As outside counsel, I sometimes take instruction from and work with a central contact person or group that handles all internal communications. In other cases, I have to collect all the information by interfacing with two, three, four, or five different people in different parts of the organization, which can be time-consuming and difficult to manage.
Measuring Value

The last step of the strategic management process is implementation, and it is important to know if it is going well. It is hard to measure exactly what companies are getting out of the process of patent protection, but the outcomes can be characterized by both quantitative valuation and qualitative evaluation. Quantitative valuation analyzes how much money a patent, or the portfolio, is worth. This can be measured by cash flow if there is a licensing revenue stream, by sunk costs, by market comparables, or by rules of thumb. All these measures are flawed, for reasons too complicated to explain here. The difficulty with valuation is a principal reason why there is no efficient market to monetize or securitize patents: reasonable people disagree widely on the value of a patent or portfolio. Trying to put a dollar figure on the value remains a real mystery. To assign quantitative numbers is largely a business exercise, and it requires a lot of accounting and business projections.

Qualitative value involves questions such as: How many patents are pending? How many claims are in them? In what countries are they pending? How many years of life do they have left? How strong or weak are they? A qualitative analysis can be put together primarily by the patent attorney and the scientist, who can come up with some type of assessment. I sometimes refer to qualitative value as a three-dimensional graph, the dimensions being remaining lifespan, geographical scope, and strength of exclusive rights (scope of the patent claims). This approach gives a qualitative sense of the three-dimensional strengths of a particular patent or a group of patents.

Length of the Process

Typically, it takes anywhere from a week to six months from the time the inventors first present their disclosure to the time a patent application is filed. From there, it can be anywhere from a year and a half to four years or more before a patent is actually issued. Throughout that entire time, the questions of patentability and value needs to be asked over and over again at each step of the way.
The Hardest Part

The hardest part of the whole process is staying focused on all the key questions at the same time. There is so much complexity: technical complexity, legal complexity, and business complexity. It is hard enough to just figure out what the difference is from the prior art and what is patentable, but then you really need to go the extra step and figure out what aspects are more valuable, and how they are important to the organization. You need to stay focused on doing all of those things at the same time. This is why it is so important to be able to articulate a simple plan. Otherwise, most people get lost in the complexity.

Freedom to Operate: Respecting the Rights of Others

Since enterprise value is basically the total of assets minus liabilities, it is just as important to avoid catastrophic liability and disruption as it is to increase the value of the assets. Therefore, organizations must be cautious to respect the rights of others. If a patent is (or may be) asserted against a company, it is necessary to determine if there is infringement. That is, do the patent claims cover the company’s work, and are they invalid? If there is a risk of infringement liability, including an injunction, the main options are to design around the patent (find an alternative approach) or get a license. Another option is to prove the patent claims are invalid, but this requires assembly of clear and convincing evidence.

A freedom to operate analysis is a defensive study of whether there is anybody blocking you from doing what you need to do. In some areas, like agricultural biotechnology and some fields of electronics, there is a growing thicket of patents that can really interfere with the ability to commercialize a product. There may be a dozen different patented aspects of technology, so to get to market, you need to be able to get through the thicket, whether by maneuvering around all the obstacles or by cutting them down. That can involve a lot of reading patents of third parties. This is a form of gathering of market intelligence — reading patents and looking at what others are doing and trying to evaluate whether there is freedom to operate and if there isn’t, then taking steps to redesign the product or obtain a license.
Recent Changes and Future Trends

The biggest recent change worldwide is the availability of public information. In the United States, you can now search not only patents, but patent applications, and you can download PDF files of all patent prosecution correspondence of competitors in almost real time in many countries, including Patent and Trademark Office actions and applicants’ responses. You can gather, for free, all kinds of information about who is doing what and where. It makes knowing your competition and marketplace so much easier, but at the same time it kind of raises the standard for what is typically expected of a patent practitioner. You also need to be aware that your own actions are being monitored by unseen members of the competition.

This openness and information flow is a big step on the road toward harmonization. There is an international movement to come up with consistent rules that would align United States practice on first to invent, grace periods, and disclosure requirements, with other countries. This will simplify and reduce the cost of the overall patenting process, but will do nothing to reduce the importance of strategic planning.

Another recent change is the increasing importance of the public interest voice in patent policy. This is affecting decisions about what patent laws should be in the United States and various other countries. Issues of morality and fair play, and equity between rich and poor countries, are raising questions about what is patentable and what the requirements are for patentability around the world. This is partly a consequence of the increased importance of intellectual property in the global economy. It is also a form of pushback, as developing countries have been convinced to make their patent laws stronger over the past decade.

Thus, the role of intellectual property in developing countries has increased. For example, India has just implemented patent laws for biotechnology and computer software. India is the number two software exporter, and is rapidly expanding its innovation in biotechnology and pharmaceuticals. With the increasing strength of their patents, many of the major pharmaceutical companies are beginning to invest heavily in the India
marketplace. The expansion of the research and development enterprise goes along with the increasing strength of patent laws.

In conclusion, the need for strategic management of patents is greater than ever. The value of patents is high, and it is rising in most countries. Organizations waste assets if they do not protect their patentable inventions, but they also waste assets if they protect them inefficiently. Meanwhile, the risk of liability has increased as the number and value of patents has increased, producing a thicket in some sectors. Therefore, measures to minimize liability are also crucial. This effort requires careful collaboration between lawyers, scientists, and businesspeople, and hopefully this chapter has provided some guidelines for them. If the right team is assembled and works well together, the reward will be a stronger organization, with greater success in reaching its goals.

Mr. Gollin has over twenty years of experience providing strategic counseling to clients in all aspects of intellectual property law. A registered patent attorney, he prosecutes patents and trademarks, negotiates intellectual property agreements, and has litigated patent, trademark, copyright, and trade secret cases. His work involves a wide range of technologies, including pharmaceuticals, cosmetics, foods and dietary supplements, medical devices, recombinant DNA, vaccines, industrial biotechnology, nanotechnology, bioinformatics, environmental technology, natural products, agricultural products, and Internet systems. Mr. Gollin builds and manages worldwide intellectual property portfolios for clients, expeditiously resolves disputes, conducts due diligence and intellectual property audits, and negotiates licenses and other agreements to help clients extract value from their technologies.

Mr. Gollin obtained a bachelor’s degree in biochemical sciences from Princeton University, a master’s degree in zoology and molecular biology from the University of Zurich, and a law degree from Boston University. He is an adjunct professor at Georgetown University’s McDonough School of Business, where he teaches strategic management of intellectual property. He has co-authored several books and has published and presented over forty papers around the world, and has been interviewed by National Public Radio, Fox News Channel, Time Magazine, Nature Biotechnology, and numerous newspapers. Mr. Gollin is an active volunteer in professional and nonprofit
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