Patent Portfolio Creation and Management

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Patents and other intangible assets are increasingly important to the success of companies of all sizes. Obtaining and maintaining valuable patent assets, in particular, requires that business leaders provide the necessary focus and attention to define and support a patent portfolio management strategy. Success requires defining responsibilities and processes that facilitate the efficient use of company resources to maximize the value created within the company. This article describes procedures and strategies that experience has shown facilitate the ongoing process of successful patent portfolio creation and management. These procedures include defining strategic patent goals that reflect the strategic corporate goals, maintaining an inventory of existing patents and related materials, and creating and implementing a procurement and management process in which decisions are made in light of the strategic goals.

I. Define Strategic Patent Goals that Reflect the Strategic Corporate Goals

Success in the patent arena requires defining corporate strategies, communicating those strategies to key individuals throughout the organization, and utilizing patents to complement those strategies. This type of strategic alignment drives a connection between a company’s overall strategic direction and its patents and, in many cases, can play a significant factor in the company’s ultimate success.

Strategic alignment in large and medium size companies requires attention and commitment of upper level corporate management. Upper level management must recognize patents as a fundamental business tool and provide access to the key information and people necessary for effective strategic alignment. Knowledge of the particular corporate strategy often leads to a patent strategy, involving smarter, more efficient use of resources available to support a patent portfolio. As examples, a particular consumer goods manufacturer may prioritize launching new products and creating brand loyalty in those new products, while another may focus on developing methods for lower cost manufacturing and economies of scale. These different corporate strategies can translate into very different patent strategies.

As another example, an organization with a strong strategic interest in a particular market area can target resources to create an array of patents that individually cover narrow aspects of products or services, but collectively form a minefield of protection that aims to be insurmountable to competitors, even if there are gaps in coverage. This strategy may be of interest to large corporations given the potential resources that can be allocated to amassing such volumes of targeted patents. The effort and funds necessary to sustain such efforts may not be available to smaller or emergent patent companies that tend to have smaller patent portfolios and fewer resources. Accordingly, an effective patent strategy may also account for company size and market position.

A company’s overall strategy should also be guided by an understanding of the patent landscape in which the company operates. The decisions to pursue certain markets and products should be guided by an understanding of competitor offerings and the patents of third parties that may pose barriers or alter the risk analysis involved in the decision making process.
In short, an overall strategy should be based on consideration of at least the following issues:

1. Why are we obtaining patents and what do we want them to achieve for us—how would we define success?
   a. Protect exclusivity in product or service offerings
   b. Defensive purposes
   c. Generate revenue
   d. Build reputation for innovation for investor and public relations purposes

2. What are our competitors doing and what does that mean we should do?

3. What additional resources are needed for the effort to succeed, how much will they cost, how does that compare with how much we are willing to pay in the short term and long term, and how will the effort be funded?

4. Which individuals are willing to be responsible as stakeholders for success?

5. Which individuals will be responsible day to day in carrying out the effort?

II. Inventory Existing Patents and Related Materials

A. Patents

The company should access existing patent holdings to determine how those holdings can help achieve corporate goals. One effective tool for understanding a company’s patents is a list or docket of patent applications and issued patents. Graphical representation illustrating the relationships may also be used, but a simple docket is usually sufficient. The docket should be organized by patent family, so that U.S. items for a particular invention are listed in the same location as their non-U.S. counterparts to allow the reviewer to understand what patent rights protect which inventions in which jurisdictions. For each patent or application, the docket will usually list the relevant country, inventor names, invention title, filing or priority dates, grant or issue dates, relevant serial numbers, attorney reference numbers and the company’s reference numbers. A comments column is often helpful to summarize key inventive or commercially relevant features. Comments on pending patent applications can briefly indicate the specific technical areas or features for which new or additional coverage is being sought.

If a patent docket does not exist, the company can identify relevant information by asking individuals who are involved in obtaining patents, including technologists and outside counsel, to provide any relevant correspondence, spreadsheets, and/or dockets. As a check, the company should track online databases such as Delphion\(^1\) and Inpadoc\(^2\) to ensure that all applications and patents are listed.

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1 The Delphion web site is owned and operated by Institute for Scientific Information, Inc. See [http://www.delphion.com](http://www.delphion.com) (last visited Mar. 9, 2009).

The inventory effort should also ensure that the patents and applications are properly reflected on the record as owned by the company, including title checks and review of assignment documents recorded in the relevant patent offices.

B. Licenses

The company should perform an inventory of licenses—including licenses both out of and into the company. Licenses out need to be correlated to the patents shown in the company’s docket to understand what rights may be in the hands of third parties and whether those third parties have paid royalties. The company should review licenses into the company to ensure that the licensed patents have been maintained properly and continue to be of use to the company and, if not, whether appropriate termination provisions should be invoked.

C. Assignment and Confidentiality Obligations

The company should inventory employment, third-party development, and non-disclosure agreements. An effective intellectual property ("IP") program must properly administer employment agreements that assign to the company all IP created on company time and money, and create an obligation to respect trade secrets and confidential information. If adequate agreements are not currently in place, depending on the circumstances, a new agreement may be provided to the existing workforce or may be provided only to new employees. In any case, the company must take care since enforceability of such agreements is governed by state law, which can vary by jurisdiction, and involves different temporal, geographical, and other limitations in different states. Third-party non-disclosure agreements can take several forms—those in favor of the company, in favor of the third-party, or bilateral. The company should review such agreements for assignment of IP provisions and indemnification obligations in order to better understand the company's ownership and IP position, as well as obligations and constraints placed upon it, where the company has jointly developed technology with third-parties.

D. Other Intellectual Property Rights

Although beyond the scope of this article, the company should inventory other intellectual property rights such as trademark registrations, copyright registrations, domain name registrations, and trade secrets.

III. Create and Implement a Procurement and Management Process

Internal patent management procedures should impact every level in the organization. Pervasive IP governance allows patents to become an integral issue throughout the organization and entrenched in corporate culture. It will lead to growth in product or service offerings, protection of key technologies, prudent allocation of resources, and increased research and development ("R&D") effectiveness. The primary focus of the efforts should protect the most economically valuable aspects of the company both presently and in the future. The competitive advantage of each business unit should be considered and protected in multiple ways wherever possible. Generally, while each company has a different organization and vision that requires a unique structure best suited to realize the company’s goals, the following best practices are usually applicable.
A. Assign Responsibility for Patent Decisions

Effective IP governance requires making one or more individuals responsible for each of the company’s patent portfolios. These patent attorneys and/or IP coordinators must allocate IP dollars effectively and ensure that the day to day activities are consistent with corporate strategy. This may involve improving the IP creation process to minimize costs and maximize IP benefits, examining the economic factors surrounding new technology, and creating IP to capture the technology’s key value propositions. They can thus ensure that patents are written to cover the commercially relevant aspects of the technology and that multiple patents are filed on critical technologies. The attorneys or coordinators may periodically touch base with company technologists to determine what new developments are under way and prompt inventors to submit ideas for consideration. Experience shows that even a modest but sustained level of proactive effort creates a significant difference in idea submissions and ultimate effective patent protection. They can also monitor company activity to help ensure that company activities, such as publication of an idea or sale of a product, do not bar or limit the available patent protection.

The company can achieve significant cost savings by periodically pruning its patent portfolio of obsolete IP. When performing IP audits, companies are often surprised to find they are maintaining patents on technology or in jurisdictions that no longer have any value for the organization. The Dow Chemical Company was able to save over $40 million by pruning its patent portfolio.

Companies with larger portfolios typically have a number of in-house patent lawyers and others whose performance is based, at least partially, on volume of applications filed, patents issued, and budget control. In other companies, including many small companies, business managers and former technologists run and administer the patent portfolio. A company may use both in-house and outside patent lawyers to help guide a patent program in the face of the ever-changing laws and rules that govern patent applications and the application examination process. Many companies, both large and small, utilize the outside patent counsel to prepare patent applications and manage the deadlines associated with prosecuting the applications. In any case, the individuals responsible for preparing and prosecuting the patent applications must communicate all information necessary for strategic patent decisions to the company’s decision makers. The company can then make decisions in light of its priorities, the technology landscape, and the nuances of the patent laws.

Giving management level personnel responsibilities for both IP and strategic R&D planning ensures a strong link between the IP management and R&D. Other methods include establishing cross-functional IP committees of R&D, IP management, and marketing individuals. An IP committee can ensure that R&D resources are allocated to support the company strategy, focus innovation efforts in areas where IP protection is available, and can support the overall corporate strategy and goals. Time and money need not be wasted in areas where protection is not available or another’s patent prevents market entry. An IP committee is ideally small, meets regularly such as once per quarter, and includes technologists, product managers, and marketing people who can envision the commercial significance of the technology in the market. Agenda items include, among other things, reviewing invention submissions, making decisions on which to pursue for patent searching and patenting, and making decisions on clearances and right-to-use diligence in connection with
developing product and service lines. Decisions to pursue patents should not be taken lightly with the rising costs of patent procurement and maintenance fees. This is particularly true when obtaining patents internationally. A committee should develop and use a set of objective criteria for determining which inventions are patent worthy. Outside counsel that is used to prepare and prosecute patent applications may be included in some or all IP committee meetings or otherwise updated with information and decisions from the meetings.

Effective IP governance encourages invention submissions, facilitates decisions about where and how to procure patents, keeps information flowing between inventors and counsel to ensure meaningful patent protection, keeps costs down, and otherwise builds patent rights that will properly protect the company’s investments. The on-going responsibilities of those involved can include, among other things, promoting the following benefits:

1. Increasing revenue from the current portfolio (sales, royalties, or patent sales);
2. Reducing expenditures on IP protection by focusing efforts;
3. Redirecting or reducing R&D spending to areas of competitive advantage;
4. Protecting key products more effectively against competitors;
5. Sustaining a competitive advantage through multiple product generations; and
6. Using intellectual assets as a key driver in strategic corporate goals.

B. Manage Invention Disclosure Forms and Processes

An invention disclosure form is a way for an inventor to identify a potentially patentable idea. A form is ideally only several pages long in order to avoid being unduly burdensome to busy engineers and technologists. It nevertheless is ideally structured to prompt for and acquire information necessary to prepare at least a provisional U.S. patent application and determine whether a patent effort makes sense.

An effective invention disclosure form seeks not only a description of the technology and how it operates, but also how the technology makes a difference in the market. Although some regard patents as a technical disclosure, more properly conceived they are commercial documents that protect a company’s position in the marketplace or generate a licensing revenue stream. To achieve these objectives, patents must be engineered to disclose not only the relevant technology, but also with a view to how the technology will improve existing products, give rise to new products, improve the company’s competitive position, and otherwise contribute to economic performance. Accordingly, the forms need to elicit information not only about the technical details, but also alternative ways to carry out the technology, identification of competitors and their products, how and why the technology will allow the company’s products to surpass the competition, and what aspects of the technology need to be accentuated and claimed in the patent to maximize coverage for the subject matter that is not only interesting to an engineer, but that is also commercially and economically relevant.
C. Provide Incentives for Innovation

Even with the most effective patent governance, the company can lose patent rights and overlook technology without appropriate incentives to reward inventors for their efforts. Awards dinners or other occasions where inventors are recognized by the highest level people in the company are particularly effective. In addition, financial incentives can include an award upon filing of an application and/or issuance of a patent and upon attainment of inventor levels, such as being an inventor on a certain number of the company’s applications or issued patents. Financial incentives are easy to game, however, and need to be carefully considered in order to maximize inventor cooperation (and minimize outside counsel fees), not only in preparing the applications, but also during prosecution of the patents where the inventors should remain involved. In certain situations, particularly with high profile technologies, royalty sharing agreements may be appropriate.

A good “first step” in implementation of a new program or incentive process is a “road show” to familiarize technologists, decision makers, and marketing people with what the company plans to do and why these personnel should want to play a part. The road show in its most effective incarnation is a series of business cases that use actual examples from the company’s market where patents have made a commercial difference. The cases help the participants learn how patent laws work, what can be patented and why, how patents are created, and why and how they have made a commercial difference, such as to protect product lines, lock in customers, lock in suppliers, garner profits from out-of-field licensing, and other real-world objectives. The discussion ideally describes how technologists at the road show can participate in submitting disclosure forms, sustain information flow during patent prosecution, and otherwise support the IP strategy. The road show should require no more than an hour and a half in order to sustain attention. At the end, the company should distribute inventor packets with a short description of the points made in the road show, the company’s IP policy, and the disclosure forms.

D. Assess the Significance of Innovations

Once a company decides to file a patent application, it should consider whether the technology represents a key economic opportunity. Many companies file patents defensively, and in such cases a single patent covering non-critical technology may be sufficient. However, if the technology is economically significant, the company should consider applying for additional patents in order to capture the key technology in multiple ways. One patent covering a portion of a lucrative market can often invite litigation, but multiple patents that create a stronghold on the technology can discourage competitive attacks and provide a significant market advantage. In particular, a common defense to patent infringement claims is that the asserted patent is invalid. It is more difficult to prove that the PTO repeatedly made mistakes when issuing multiple patents related to different aspects of the technology. By evaluating the economic significance of the technology, the company can determine which technology warrants the most attention and resources.

E. Establish Cross Business Unit Channels

Companies should attempt to convey innovation and know-how across business units. This often enhances product development, distributing R&D expenditure over a wider array of product
offerings. For example, the Proctor & Gamble Company initially developed a technology base for making candles that led to new products such as soaps, then detergents, and later to other hygiene products including toothpaste. Although the product offerings developed over time, they all originated from a common technology base developed by involving the use of fats and oils.

F. Monitor Competitor Patents

By monitoring competitor patents, companies will have a better understanding of the patent landscape and, more importantly, a better understanding of their own strengths and weaknesses within the industry. The patent monitoring process will also assist in determining the most efficient way to supplement areas of technology in which the company is weak. For example, in certain situations it may be more cost effective to license or purchase technology rather than spend the time and effort to create the technology through R&D.

G. Implement a Monetization Strategy

In some cases, licensing some or all patent rights is an effective way of maximizing profit and return on the R&D investment in accordance with a company’s overall strategy. Patent licensing has garnered substantial amounts of attention recently. Many people are aware that IBM Corporation has a nearly $2 billion dollar annual revenue figure generated from patent licensing. Other companies, such as Texas Instruments Incorporated and The Dow Chemical Company, have also realized substantial revenue streams of several hundred million dollars annually. Licensing is a particularly attractive way to generate revenues. In most cases, the patents have already been paid for and there is very little cost associated with entering into a license, adding substantial revenue to the company’s bottom line.

Licensing is generally categorized into two types—“carrot” licensing and “stick” licensing. Carrot licensing teaches the licensee to make a new, better, or cheaper product. This involves the transfer of technology, and often know-how, to the licensee so it can improve its situation. Licensees in carrot licensing situations tend to be eager to adopt new technology if the licensor can show the economic value in the technology and that it has been properly protected.

Stick licensing involves identifying infringers and approaching the infringers to take a license. Since the alternative to entering into a license is often litigation, stick licensing tends to be more adversarial than carrot licensing. In such cases, the licensee already knows how to practice the technology so the only value to be gained by taking a license is to avoid litigation. Because of the adversarial nature of stick licensing, potential licensees often look to their own portfolio to determine if it is being infringed by the licensor in order to create bargaining power. This can result in a cross-licensing situation with little or no revenue changing hands.

IV. Conclusion

There are many benefits to successful patent portfolio creation and management, including increased revenue, improved resource allocation, and more efficient and effective R&D—all of which enhance shareholder value. Companies that adopt and maintain effective strategies are able to bring technology to market faster and sustain longer lasting competitive advantage.