Competitive Intelligence and Its Role in Increasing the Value of a Patent Portfolio


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The term "strategy" has been used in many contexts, but seldom in the context of intellectual property procurement, and in particular, patent procurement. For the vast majority of applicants, patents have historically been applied for on an ad hoc basis as inventions were conceived. The focus, however, was, and continues to be, not on the future value of the patent as a strategic tool, but rather on protecting what the particular applicant is making or doing at the time of filing. While this may be exactly what the client has asked for, the usefulness of the patent might be limited to just that: blocking competitors from doing what the client is practicing now.

Only recently has strategy emerged as an important aspect in the procurement of patents. This increased focus on patenting strategically or "smartly" has coincided with a growing trend of viewing intellectual property as a vital corporate asset. As L. Thurow stated so well, "with the advent of the information revolution — or the third industrial revolution … skills and knowledge have become the only source of sustainable long-term competitive advantage. Intellectual property lies at the center of the modern client's economic success or failure."[1]

In view of the growing importance of intellectual property, patent practitioners are being called upon more frequently to procure a patent portfolio that provides a strategic advantage over a continuously changing landscape of competitors and their products in the marketplace. However, the patent practitioner requires a key ingredient before such strategy can be successfully employed, namely intelligence.

The present discussion defines intelligence in the context of strategic patenting, and the importance of its use in building a world-class patent portfolio. Also presented is the manner in which this intelligence may be collected and organized. Finally, various strategic techniques of employing such organized intelligence are suggested.

THE IMPORTANCE OF INTELLIGENCE

The importance of the role of intelligence in patent procurement is rooted in the utility of a quality patent portfolio and, in particular, the manner in which intelligence is used to improve such utility. This utility may primarily be classified as having a defensive nature or an offensive nature. Of course, there are various other uses of patents, such as enhancing the client's value proposition, marketing, easing engagements and partnerships, etc.

Offensively, a patent portfolio may be used to generate licensing revenue, block a competitor from a particular market space, force an acquisition, and so on. Defensively, a patent portfolio ensures the client's freedom to operate. In particular, a patent portfolio arms a client with "trading chips" to be cross-licensed or otherwise leveraged in response to any aggressive action.

In both an offensive and defensive context, a patent portfolio preferably includes patents with claims that cover the market activities of competitors. The stronger the correlation between the client's patent claims and the competitors' market activities, the more leverage the client has in fulfilling its business objectives with respect to these competitors.

Intelligence is critical for ensuring that patents are not procured in a vacuum, but instead are positioned so that all critical technology is patented in a way that also covers the market activities of competitors. Before intelligence can be used to effectively increase the value of a patent portfolio in this manner, however, such intelligence must first be obtained. Gathering intelligence pertinent to a particular competitor's market activities can be an onerous task.

COLLECTING THE INTELLIGENCE

Intelligence used during patent procurement can have many different forms. In the context of the present discussion, intelligence may include any information relating to the subject matter covered by a particular patent portfolio (i.e. "patent intelligence") and the market activities of competitors (i.e. "market intelligence"). Ideally, such intelligence is collected for the client whose portfolio is being managed, in addition to any competitor with patents and/or market activities that overlap those of the client. Collection of this type of intelligence allows both the patent practitioner and the client to gain insight into the patent portfolio and market activities of the client's competitors.

With the advent of the Internet and the information age, the ability to gather market intelligence has improved tremendously. In the interest of marketing their products, competitors disclose a sizeable amount of information on web-sites to inform the public of their products and services. This information may take various forms such as press releases, data sheets,

user manuals, white papers, etc. Further, many independent third-party organizations provide product and service reviews. These various types of information increase the pool of data from which intelligence may be gathered. Of course, traditional information gathering methods such as reverse engineering, trade shows, etc. are still viable though often more expensive ways of collecting market intelligence. In any case, the intelligence gathering process does not stop with identifying competitive market activities, but also includes analyzing competitive patent portfolios.

Less than ten years ago, the most prevalent method used to collect patent intelligence entailed an afternoon spent at the United States Patent Office (USPTO) search room thumbing through "shoes" of patents. Today, on-line databases provide an effective means of accessing a vast amount of information not only on United States patents, but also foreign patents, pending patent applications, etc. Examples of such publicly available on-line databases include the USPTO patent search portal (http://www.uspto.gov/patft/index.html), the Delphion® patent database (http://www.delphion.com), and services provided by others such as LexisNexis®, Westlaw®, Dialog®, etc.

In addition to actively searching for patents using the foregoing databases, various services are available for periodically processing search queries in an automated manner. These search queries are saved and automatically run on a reoccurring basis. Such services render automatic e-mail alerts and the like to provide a notification of recently published patents and applications matching the search criteria. To this end, patent intelligence may be automatically gathered and delivered.

Thus, the process of gathering intelligence has been simplified. Using the foregoing tools, valuable information may be obtained for use when building a patent portfolio.

ORGANIZING THE INTELLIGENCE

As the size of a patent portfolio increases, there is a coinciding need to organize the vast amount of information gathered from the foregoing sources in a manner in which it can be effectively employed. One preferred method of organizing intelligence is a technique referred to as "mapping." Mapping, in the present context, is a technique for organizing the client's patents in predetermined technology groups, and further correlating the client's patents with the patents and market activities of the client's competitors. In essence, mapping results in the client's patent portfolio being organized in such a fashion that it can be compared to a competitor's patent portfolio, and can indicate a degree of coverage of competitive market activities.

Mapping, if done properly, can provide considerable insight into the client's patent portfolio. This insight can then be actively and strategically used to transform intellectual capital into patents that are well-positioned to effectively meet the defensive and offensive business objectives discussed earlier. Furthermore, mapping can make the strengths and weaknesses of the client's patent portfolio immediately apparent. Three types of mapping that are commonly employed include technology mapping, patent mapping, and license mapping.

Technology mapping refers to the process of organizing a patent portfolio by separating the patents in that portfolio into multiple technology groups. This separation identifies the strengths of the client's patent protection in various technological areas. Figure 1 illustrates an exemplary technology mapping. As shown, the client's quantitative patent position is stronger in Technology X as compared to Technology W, Technology Y, and so forth.

In order to properly conduct a technology mapping, the aforementioned technology groups must first be identified. A relatively painless way of accomplishing this identification is to utilize the classes assigned by the patent office. Unfortunately, such classifications are often loosely assigned to patents. In order for technology mapping to be most effective, the technology groups should be chosen based on relevance to the business of the client and the client's competitors. Thus, it is ideal if the technology groups are manually selected. The client's product line and divisions are often the best places to begin identifying pertinent technological categories.

Once the technology groups have been selected, the patents in the client's patent portfolio may be categorized according to the most relevant technology group, such that the number of patents in each of the technology groups is specified. This information reveals the quantitative strengths and weaknesses of the client's patent portfolio with respect to the established technological areas of interest. Moreover, technology mapping parses a large patent portfolio into a number of digestible portions, making the portfolio much more manageable.

In contrast to technological mapping, patent mapping provides a comparison of the client's patent portfolio with the patent portfolios of the client's competitors. Patent mapping may take various forms. For example, each patent in the client's portfolio may be reviewed to identify patents referenced by a patent office examiner during prosecution, as well as other patents that reference the particular patent. This information is often referred to as forward and backward citing. Other types of queries may be used to locate related patents based on patent class, bibliographic information, etc. Again, publicly available databases are critical in gathering such patent intelligence.

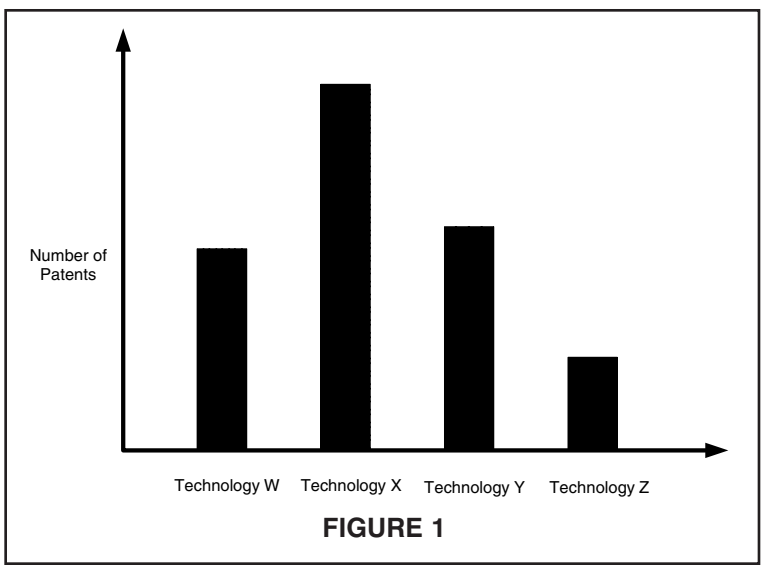

FIGURE 1

Ideally, patent mapping involves not only issued patents, but also pending patent applications. While the competitors' recently-filed patent applications are usually not available for review, these patent applications may be available if they are published under the Patent Cooperation Treaty (PCT) and/or under recent amend-

ments to United States patent law. Such publications may give at least a glimpse of the competitor's current technological focus.

Patent mapping often exposes the competitors' research and development areas that overlap that of the client. Further, such patent mapping provides information with which patent value may be determined or evaluated. For example, if a particular patent has been referenced by a large number of patents in a short time period, such patent is likely a pioneering-type patent representing a base technology which other competitors are improving upon. To this end, the client's "crown jewel" patents may be uncovered using this type of patent mapping.

As mentioned above, patent mapping may take various forms. An alternative or supplementary type of patent mapping is more competitor-driven, as opposed to patent-driven like the foregoing technique. When conducting a competitor-driven patent map, one must select several competitors of interest. Once the competitors of interest are established, the competitors' patents are ascertained.

These competing patents may then be sorted into the technology groups selected during the technology mapping. This step is identical to the technology mapping described above. With both the client's patent portfolio and the competitors' patent portfolios mapped side-by-side in this manner, the client can "size up" the competition by realizing particular strengths or vulnerabilities with respect to the particular competitor.

Figure 2 illustrates an exemplary competitor-driven patent mapping. As shown, with respect to the Client X, the Competitor Y quantitatively has a stronger patent position in Technologies X and Z, and a weaker patent position in Technologies W and Y.

If the results of the patent mapping are stored and presented in an appropriate medium, an intelligence information base may be afforded where all of the client's patents as well as the patents of the client's key competitors may be accessed. One caveat to this analysis of competitive patents is the potential liability under any notice of such patents and associated willful infringement. This risk may be weighed against the foregoing benefits, and procedures may be concurrently established to minimize such risk.[2]

The final type of mapping, license mapping, is perhaps the most valuable intelligence that can be used to increase the value of the client's patent portfolio. License mapping primarily focuses on two types of information, the client's patents and patent applications, and the competitors' market activities, as opposed to the competitors' patents, as set forth above. Competitive market intelligence is vital for license mapping.

One way to approach license mapping involves a patent-by-patent review of the patents in the client's portfolio, whereby competitors' market activities that correlate with the claims of each patent are identified and organized. In other words, the claims of each patent are reviewed against the market activities of selected competitors in order to identify such market activities that fall within the scope of the claims. For reasons that will soon become apparent, the market intelligence gathered during the course of the present mapping need not and should not only be those competing market activities that are deemed to be infringing the claims of issued patents, but also competing market activities believed to correlate with the claims of pending patent applications.

Similar to patent mapping, license mapping provides information with which a value of a patent may be determined. If a particular patent has a large number of instances of correlating competing market activities, such patent is likely to represent significant licensing potential. Further, such patents may likely be useful in a defensive situation in any effort to secure the client's freedom of action.

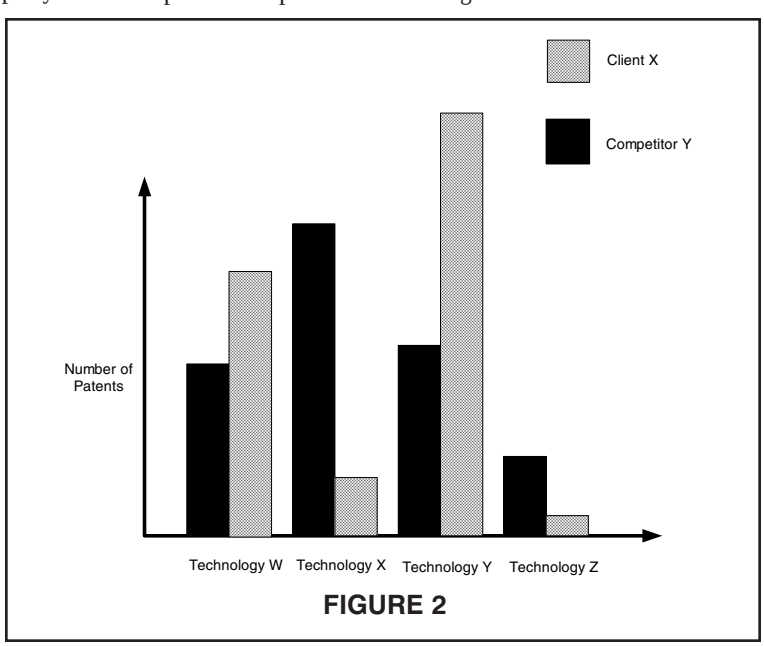

FIGURE 2

USING THE ORGANIZED INTELLIGENCE TO INCREASE THE VALUE OF A PATENT PORTFOLIO

With the intelligence in hand and organized according to the foregoing mapping techniques, the value and effectiveness of the client's patent portfolio can be greatly enhanced. For example, this intelligence may be used for various purposes such as strategically selecting disclosures to file for patent protection, selecting continuation patent applications, increasing the value of already pending patent applications through tailoring and addition of claims, accelerating the examination of patent applications, conducting licensing initiatives, and supporting litigation.

Using the various mapping techniques, the client can level the playing field with the competitors by filling any gaps in the client's patent portfolio. When filtering invention disclosures to determine which inventions will be pursued in a patent application, for example, the client and/or patent prosecutor can utilize the technology mapping to further determine whether a patent on a particular disclosure will bolster patent protection in a technology area in which the client has few patents and patent applications. Moreover, this technique may be used to ensure market dominance in desired technology areas or to pinpoint opportunities for patent exclusivity in unexplored technology groups. Further, by examining competing patent groupings via a patent map, the client can potentially unmask areas in which the client is lagging behind. Still yet, the present mapping techniques may be used to avoid patenting the same invention or minor variations thereof more than once.

As mentioned earlier, the license map effectively identifies the crown jewel patents in the client's patent portfolio. If such identification takes place before a patent has issued, this intelligence may

warrant filing a continuation. By maintaining the pendency of such patent applications, maximum value can be extracted from the patent application by filing additional claims, broadening existing claims to ensure direct literal infringement, etc.

After conducting a license mapping, the resulting market intelligence may be used during patent prosecution to add claims that cover the newly identified competitive market activities. Thus, the claims in the patent application may be aligned with the competitors' market activity, thereby increasing the value of the patent application when it issues. In light of potential estoppel issues, claims are typically added, rather than being amended.

Also, such market intelligence may be used when responding to an office action issued by a patent examiner. Traditionally, only the claims and prior art are the subject of attention when responding to an office action. By introducing a third element, market intelligence, claims can be added that ensure that a more valuable, infringed patent issues. By utilizing market intelligence to align the scope of the claims with the competitors' activities, the disadvantages of claims being prosecuted in a vacuum are avoided.

Using the results of license mapping, pending patent applications regarded as being infringed may be eligible for accelerated examination by filing a petition to make special under 37 CFR 1.102 and MPEP § 708.02(II)[3]. However, the patent practitioner should verify that evidence of the competitors' activities does not represent prior art as opposed to infringement of the client's patent application claims. If the evidence represents prior art, an information disclosure statement should obviously be filed instead of a petition to make special.

Once the patent practitioner has established and implemented the various mapping techniques during patent procurement, a knowledge base is created that may be used to analyze and gather information about the client's patent portfolio for a variety of additional purposes. For example, the license mapping may be used to identify patents to be used defensively in the event the client is confronted with one or more patents from the competitors' patent portfolio in a litigation context. Still yet, the license mapping may be used to kick off a licensing initiative.

CONCLUSION

The client's ability to achieve its business objectives is heavily dependent on the quality of the client's patent portfolio. As discussed herein, the quality of the client's patent portfolio can be significantly improved by fusing intellectual property procurement with competitive patent and market intelligence.

ENDNOTES

1. L. Thurow, "Needed: A New System of Intellectual Property Rights," Harvard Business Review (Sept-Oct 1997)
2. Kevin Casey, "Proposed Corporate Procedure Minimizing Liability for Patent Infringement & Willful Infringement While Handling a Large Volume of Patents," Intellectual Property Today (July 2002)
3. 37 CFR 1.102 and MPEP § 708.02(II)