

Patent Application Prioritization And Resource Allocation Strategy

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A single page, poster style chart accompanies this article, and provides an “at-a-glance” overview of a suggested strategy for prioritizing patent application efforts and resources. The chart, along with this explanation, incorporates the philosophy that a one-size-fits-all process for protecting Intellectual Property (IP) is far from ideal. Instead, what is suggested here is that inventions be stratified according to predicted economic value, so that effort and resource allocation can be prioritized. Additionally, this stratification should follow the invention through the patent application prosecution process.

The strategy leverages a convenient coincidence that there are three primary uses for patents and also three common levels of patent prosecution quality available in the legal services market. The three primary uses for patents, in the view of the authors, are (1) asserting in order to protect market share or to maintain product differentiation; (2) overwhelming a competitor’s or a legal opponent’s ability to fully analyze your portfolio for threats against them, thereby deterring litigation; and (3) obtaining bragging rights to a large portfolio, in order to enhance licensing opportunities. The three common levels of patent prosecution quality, which often correspond to general expense levels, are (1) highly-skilled legal work having expert-level technical accuracy and detail, that is typically available from large law firms and IP boutique firms that specialize in a limited industry area; (2) competent legal work having adequate—but not stellar—technical accuracy and detail, that is typically available from mid-sized laws firms offering lower rates than the large firms; and (3) lowest bidder work, for which the price is more important than the identity of the drafting agent, and for which quality may be severely curtailed by the drafting agent’s time budget or technical expertise.

Fortunately, there is a serendipitous correlation between what is required for each of the three patent use classes and the three levels of legal service quality. So upon evaluating the potential value for each invention idea, a prosecution resource level can be selected for each separate invention. With this system, sufficient resources are allocated to those inventions having the greatest likelihood of significant payback, while a patent portfolio can still

grow reasonably large, because costs are kept low for lesser inventions.

The chart provides a decision process flow for evaluating a single invention at a time. Managing a portfolio of multiple inventions is a far more complex task, which includes setting a significant budget. Some comments from the authors on the budgeting aspect of an IP protection strategy are provided in [i]. There are five decision points in the attached chart, which will be addressed in detail in individual sections below. The decision points are (1) trade secret; (2) top-tier patent; (3) middle-tier patent; (4) low-tier patent; and (5) public disclosure to prevent another from obtaining a patent on a similar idea.

Trade Secret

The first question should actually be whether to even apply for a patent, or whether keeping the invention as a trade secret is a preferable option. In the U.S., patenting requires public disclosure no later than the date of patent grant, although there is a potential that the 18-month post-filing publication date may become mandatory in the U.S., as it is currently in Europe and for PCT applications. Since obtaining a patent requires informing the entire world (or at least everyone having an internet connection) how to build your invention, a patent might give away too much. However, trade secrecy decisions can be exceptionally complex, and some technologies introduce additional factors to consider, as indicated in [ii].

Describing an effective trade secret decision process can fill several books. Rather than attempting such an ambitious task, a quick checklist is provided here. The basic criteria include (1) whether exclusive use of the invention provides a competitive advantage; (2) how likely is it that the same idea will be independently discovered by others, quickly enough to degrade the value of the secrecy, when considering how rapidly technology changes in the specific market; (3) whether

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the invention can be discovered by reverse engineering your products; and (4) whether secrecy provides more value than the best likely patent rights, plus publicity benefits.

Secrecy can be lost through accident, industrial espionage, or other events. This risk should be a non-trivial part of the consideration. Additionally, it is often more expensive to maintain secrecy than is typically recognized, because there is no easy way to account for the costs. Although few activities are directly associated with maintaining secrecy for accounting purposes, the true costs can become significant. Many collaboration opportunities can be lost, and restrictions on the flow of information can introduce inefficiency in design and production. These costs are real, even if there is no easy way to identify and allocate them.

Because the value of secrecy must be compared with the value of the patenting options, likely allowable patent claims must be ascertained in this part of the process. Thus, this first step may actually be the most challenging. Fortunately, much of the work done here can likely be reused in the later process steps. Also note that secrecy prevents open publication, thereby precluding publicity benefits that could potentially attract top-quality labor and generate industry respect. Further, secrecy might enable a competitor to obtain a patent on a similar idea.

However, if the decision is not made to keep an invention as a trade secret, the specific tier levels of patents should be evaluated from the top, working downward.

Top-Tier: Business Builder Patent

A Business Builder Patent is one that may be relied upon to protect market share or to maintain product differentiation through enforcement, and thus should have sufficient novelty and prosecution quality to withstand litigation attacks. Evaluation criteria include (1) whether the invention is likely to be built or sold where it is patented; (2) whether the royalty rate times the number of units provides a significant royalty amount; (3) whether the likely assertion target is an entity within your industry; and (4) whether infringement is easily detectable.

Since patent protection is local, if funds are not available to patent with sufficient geographic coverage, investing a lot of money in only a few jurisdictions might not be the optimum course. Factors that affect the likelihood of an invention being copied include the desirability of its features, and the feasibility of a design-around. If even blatant infringement will produce a negligible royalty stream, an expensive

patent might not be a wise investment.

Detectability is something that should be evaluated for every invention, and included in the patenting decision analysis. One suggested method is to classify an invention according to five levels: (1) Implementation of the invention can be detected, even without possessing an accused device. (2) Implementation of the invention can be detected easily with typical consumer use of an accused device. (3) Detecting implementation of the invention within an accused device requires commonly available test equipment and technicians, but no significant expense. (4) Detecting implementation of the invention within an accused device requires specialized, uncommon test equipment or inordinately expensive procedures. (5) Implementation of the invention cannot be independently detected with reasonable efforts, but instead requires an admission by an accused infringer. Enforcement of a patent is a considerable risk of resources, if you won't know for certain whether your patent is being infringed until reaching the discovery phase of litigation.

The relationship between a patenting decision and the bounds of your specific industry primarily involves focus and expertise. Even if an invention is relevant only for a different industry sector, but there are sufficient time and money resources to pursue a patent, the resulting patent can potentially have real value. Any good invention can be licensed or sold, even if it is only relevant outside your industry. However, for inventions outside your specific industry, it is less likely that your engineers will have invented something truly novel, or that they will know the state of the art sufficiently to reliably prioritize resources. Additionally, time spent working on patents outside your industry can distract your engineers from more relevant tasks. Still, if you stumble upon a really good invention, then the fact that you won't build it should not derail its evaluation for possible patenting.

High scores are needed for all of the above criteria to qualify an invention for consideration as a potential Business Builder Patent. Note that the evaluation criteria are applied to the expected allowable patent claims, rather than the market value of a product that uses the invention. If a Business Builder Patent is selected, use a spiral development process for the patent application. After the inventor has described the invention, and it is provided to a patent expert for evaluation, a neutral third party should review, to provide suggestions for improving the invention and application. These suggestions should go back to the inventor for incorporation, and then through the patent expert and neutral reviewer again. Alternatively,

the flow can go in the opposite direction.

Initially, the quality and potential coverage of the application should improve each cycle, although eventually the significance of the improvements will begin tapering off. When this happens, the application is ready for filing. This process is expensive, can be time-consuming, and it also delays filing. However, if the invention is important enough that any resulting patent will be far more likely to be asserted than most other patents, the investment in time and money can pay off. The budget for prosecution costs should be fairly generous, and the application should be drafted by one of the better agents who is available.

However, if an invention does not qualify for treatment as a Business Builder Patent, then it should be considered for the next lower tier.

Middle-Tier: Cross Licensing Bulk Patents

The evaluation criteria for a Cross Licensing Bulk Patent are the same as for a Business Builder Patent, but with relaxed scoring needs. Moderate scores are acceptable for each of the criteria. This tier level offers potential savings by using a “throw it over the fence” patent application process, in which a reasonably competent patent prosecutor can produce a decent patent with reduced inventor involvement and on a tighter budget.

Cross Licensing Bulk Patents should primarily be relied upon to overwhelm opponents’ resources, and such patents are probably not attractive for full-fledged litigation. Some assertion is possible, but primarily as a bluff. If this or the next lower tier is selected then, prior to agreeing to a budget and process that will foreseeably reduce patent quality, the drafting agent might need assurance that a malpractice lawsuit isn’t lurking. Ethical rules may prevent the drafting agent from requesting such assurance, so be prepared to offer what is necessary, without receiving a request.

Essentially, what happens here is that the inventor provides descriptive material to the patent application drafting agent, who operates fairly autonomously, until the inventor is needed to verify the content of the patent application for filing. The expenses of the spiral development process are avoided, and the drafting budget can be significantly lower. Only enough expense is needed for these patents that a potential licensee believes that it cannot risk being dismissive of the entire patent portfolio, and a litigation opponent must expend non-trivial effort to plan defensive contingencies.

The claims need to look fairly threatening upon initial examination by a litigation opponent or a potential

licensee, but the claims do not need to withstand determined attacks on validity or construction, if the patent is not intended to actually go to trial. The mere threat posed by several of these patents might provide sufficient deterrence value for the owner, that a moderate per-invention investment is warranted.

However, if the invention does not merit even this level of effort, there may yet be another chance for patenting.

Low-Tier: Souvenir Patents

Souvenir Patents can leverage an interesting phenomenon: When patent portfolios are large enough, even if composed of predominantly low quality patents, potential licensees might not pay royalties for any patents that they have seen, but rather they may pay for patents that they have not seen—out of fear that one of the unseen patents might present significant liability.

Evaluation criteria for Souvenir Patents differ considerably from Business Builder Patents and Cross Licensing Bulk Patents. In fact, the top-tier and middle-tier criteria have drastically reduced importance in this analysis. The reason for this is that, with Souvenir Patents, quantity is valued over quality, and the proposed low-tier process provides an inexpensive way to rapidly increase patent count.

The criteria are (1) costs will be low from drafting up through allowance; (2) there is a high likelihood of at least one claim issuing; and (3) funds are available to play a “numbers game.” Narrow claims can keep prosecution costs low and help obtain a rapid allowance, although you may struggle with many patent prosecutors’ blind adherence to a “make it broad” philosophy. That philosophy often serves to enhance billable attorney hours by inviting a series of unnecessary rejections over irrelevant prior art. However, because even Souvenir Patents require a non-trivial investment, and they primarily provide a true benefit in significant numbers, activity in this tier level may be best reserved for larger, well-established companies having a fairly sizeable IP budget.

Many companies use patent portfolio size as a form of bragging right, which can have beneficial effects in securing investment and maintaining industry reputation. See [iii] for a more in-depth discussion on the topic of leveraging patent portfolios.

It is important though, that not all of your patents fall into this lowest tier, as your entire portfolio risks being dismissed by your competitors. At least some of your patents should be in the higher tiers. However, even if an invention that is being evaluated for this tier fails to qualify, there is yet another decision to be made.

Preventing a Competitor from Patenting

A competitor might be willing to patent an idea that is very similar to one for which you have decided to forego patenting. This could be because the competitor has a larger IP budget, or else a lower threshold for deciding to apply for a patent.

Thus, there is a risk that your engineers have an idea first, you did not patent it, and then a competitor patents a very similar invention at a later time. If this happens, the competitor might obtain an advantageous revenue stream from licensing to third parties—even if the patent has such low quality that it earns only nuisance level royalties. This revenue stream, if large enough, can finance new product development or enable price reductions for current products, thereby possibly increasing that competitor's market share. Publicizing inventions, that you do not select for patenting, can reduce the likelihood of this situation occurring.

This strategy is more likely to work if you select a publication venue that puts your ideas in front of PTO Examiners who are searching prior art while examining your competitors' patent applications. Some options for public disclosure include (1) academic publications, such as trade journals and conference proceedings; (2) defensive publication services; and (3) including the disclosure of the invention, but not expending effort to properly claim it, in a patent appli-

cation that has at least somewhat similar technology. For this final option, when you file a patent application for another invention that did merit patenting, a few paragraphs of disclosure regarding the non-selected idea, and perhaps a few figures, can provide the basis for a 35 U.S.C. § 102 or § 103 rejection of your competitor's later-filed patent application.

Spending Resources Elsewhere

If none of the above criteria are met, the invention idea might provide entertaining small talk at the company picnic, but probably isn't worth pursuing. So spend your limited resources on other inventions. ■

Disclaimer

The opinions expressed herein are those of the authors, and do not necessarily reflect the views of Research In Motion.

References

[i] Wilson, Kelce and Tapia Garcia, Claudia, "How Much Should You Invest In Patents?," *les Nouvelles*, pp. 47-55, March 2010.

[ii] Wilson, Kelce, "Patenting Computer Security Systems," *Intellectual Property Today*, pg. 34, February 2008.

[iii] Tapia Garcia, Claudia, "Industrial Property Rights, Technical Standards and Licensing Practices (FRAND) in the Telecommunications Industry," Ed. Carl Heymanns (2010), p.11 et seq.

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