

MASTERING COMPLEX IP LICENSING

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Mastering Pricing Models: Determining Intellectual Property Value

by

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I. Introduction

The vast majority of companies are unaware of the value that may be hidden in their intellectual property assets. They may be focusing on their core business of products or services or may simply be trying to stay afloat. Sophisticated management of intellectual property assets (including patents, copyrighted works, trade secrets or just plain-old know-how) can unlock the potential that is lying fallow within an organization.

To develop a successful strategy, whether it means bringing intellectual property in to complement your existing portfolio or licensing out to derive benefits from otherwise under-performing assets, you need to determine:

WHAT: what intellectual property assets do you have, set goals for leveraging those assets, or determine where your weaknesses are to bolster your long-term goals;

HOW MUCH: decide how to strategically position your intellectual property assets to optimize your return and meet your business objectives, whether that is to generate cash, capture market share, or increase perceived value in anticipation of a buy-out.

II. Value Extraction from Patent Mining

A. Mining Objectives

Before engaging in a patent mining exercise it is important to determine what your end goal is. Because patent mining is iterative, that is, features of patents that may not be relevant at one stage may become relevant at another, a clear goal should be articulated so that successive reviews of the portfolio tend to whittle down the likely candidates for further action and reduce the need to backtrack as the relevant aspects of the patents change as goals shift over time.

1. Generate Cash

Generating cash is an offensive strategy and the purpose of the mining exercise is to identify those patents that are most likely to lead to successful generation of licensing fees or other revenues, such as damages from a successful infringement action. The focus of the review will be towards patents that cover an active or crowded technology space or that represent modifications or improvements over the state of the art.

a) Offensive Mining Goals

(1) Licensing Out

(2) Infringement Actions

2. Generate Leverage

If the purpose of the mining exercise is to enhance your position in the marketplace or to improve your negotiation position in discussions with potential partners or investors, this is a defensive strategy. The focus of the review will be towards identifying patents that tend to occupy a unique niche in the relevant marketplace or that can be packaged together to create an attractive package.

a) Defensive Mining Goals

(1) Obtain Technology Rather Than \$\$

(2) Equity/R&D Cooperation

B. Mining Objectives

Once your objectives have been set, you can start categorizing your patent portfolio to determine which patents can advance your objectives and which should be left for another day.

1. Infringement Candidates

These patents will have broad claims and will cover inventions that are being used by a third party in the marketplace. Confirming the likelihood that a patent is a good infringement candidate will often entail further investigation, including review of the competitor's product and a determination of the strength of the patent.

2. Non-Core Revenue Streams Through Licensing, Joint Ventures and Other Strategic Alliances

These are the patents that have utility outside your current business area and represent opportunities that are mature enough to justify the effort of out-licensing the patent. It is important to confirm that the patent claims are broad enough to cover the additional application.

3. Core-Business Licensing

These are the patents that cover the business your company is in. It may make sense to seek to license these patents if your goal is to be a technology company rather than a products company. Cash coming in can fund additional development, which may drive additional licensing revenues. If the focus of your intellectual property strategy is defensive, i.e., you seek protection for your intellectual property to prevent your competition from “stealing” your ideas, then this approach won’t work for you.

- a) Not Recommended if Your Strategy is Defensive
- b) Can You Make More From Licensing Than From Your Own Sales?

4. Merger and Acquisition Positioning Strength

These are the patents that can be bundled and presented as a package to potential purchasers or investors. Identifying patents that protect core business activities or products will give a potential purchaser some basis for valuing the business as a whole. Identifying patents or technology that is not relevant to the particular transaction is just as important as those patents can be retained (as they don’t add value to the core transaction) and leveraged in a subsequent deal.

5. Tax Donation Candidates

These are the patents covering inventions that still have measurable value but would be best used in the hands of a non-profit entity. This may be a technology that falls outside your core business or technology that hasn’t quite matured. The value of the donation can be deducted from your taxes, however, to obtain the benefit you must understand that the technology cannot be used by you again.

6. Abandonment Candidates

Simply avoiding the cost of maintenance fees and taxes on patents that have only few remaining years of validity, cover obsolete technologies, or fall outside your core business area, can add some value to the bottom line.

C. Mining Process

1. Clustering Patents

Most patents in a portfolio can be grouped by age, technology, relatedness to core business activities, or any other criteria related to the mining objectives. Once the patents are reviewed and categorized in light of the mining objectives, further reviews can further refine the selection of patents with which to move forward.

a) Separate into Core and Non-Core Patents

As a first pass, separate your patents in to two groups: Core and Non-Core. Core patents are likely to be those that cover your current business activities and have the most value to your business as a competitive discriminator. Unless your mining objectives clearly contemplate creating competitors by licensing core technology, these can usually be left on the table. Non-core patents, however, represent untapped potential revenue if the patents are strong and a suitable partner can be found.

(1) Core Patents

(a) Embodied in Current or Future Products

(b) Difficult to Value Because Embedded in Ongoing Business Activities

(2) Non-Core Patents

(a) Can Encompass Out-Of-Field Use of Core Patents

(b) Can Tie to Royalty Rate or Percentage of Profits of Licensee

2. Review the Technical Merits

Once the patent relevant to your mining objectives have been identified, have them reviewed by technical experts to determine, for example, the scope of the patent, the applicability of the patent claims to current technology, or whether the technology is obsolete.

3. Review the Legal Merits

Determine the likelihood that a patent would withstand a legal challenge or that application of the technology would likely infringe the patent of another. The strength of the patent will contribute to the likely revenues it can command and is relevant to assessing the likely scope and risk of certain license terms such as warranties and indemnifications.

4. Review Commercial Applications

Brainstorm as to the best use of the technology covered by the patents and whether any of the areas are active. This will help you identify potential licensees or present a more favorable technology presence to investors.

5. Assess Potential Revenues/Value

Valuation of a patent should be done prior to entering into discussions with potential suitors. Depending on your mining objectives, a patent's greatest value may be as barter to obtain complementary technology, as support for an infringement claim, or as a source of royalties. Let your objectives be your guide.

III. Determining Licensing Value

Valuing a licensing arrangement can be as much an art as a science, but requires a strong analysis of the goals of the transaction and the factors that play into any valuation assessment.

There are four main value concepts, namely, *owner value*, *market value*, *tax value* and *fair value*. Owner value often determines the price in negotiated deals and is often led by a proprietor's view of value if he were deprived of the property. The basis of market value is the assumption that if comparable property has fetched a certain price, then the subject property will realize a price something near to it. The fair value concept in essence, is the desire to be equitable to both parties. It recognizes that the transaction is not in the open market and that vendor and purchaser have been brought together in a legally binding manner. Tax valuation has been the subject of case law since the turn of the century and is an esoteric practice. There are quasi-concepts of value that impinge upon each of these main areas, namely, investment value, liquidation value, and going concern value.

A. Licensee's Goals

The goals of the licensee can be the most important benchmark in any valuation exercise. These goals determine the most the licensee willing to pay or contribute in exchange for

the license and the scope of the license necessary to meet the licensee's requirements. The licensee's goals set the ceiling price for a license because a demand by the licensor greater than it would cost the licensee to implement an alternative to the license would negate the benefit of the license to the licensee. Therefore, in order to effectively negotiate a license value as a licensee you should have considered your alternative and have an idea as to what they would cost. Possible licensee goals include:

1. Avoid a Lawsuit
2. Settle a Dispute
3. Speed Time to Market
4. Protect Future Growth
5. Enter Into New Markets

B. Licensor's Goals

The goals of the licensor determine the floor above which the licensor's remuneration can't sink. For core technology, the bottom line cost of creating a competitor must be determined and that cost must be exceeded by the value of the license. For non-core technology, the goal may be to recoup investment, create a cash flow to fund further research, obtain rights to licensee improvements or simply an attempt to monetize underutilized technology. However, it is important to keep in mind that every agreement to license potentially forecloses other, perhaps more lucrative, licensing alternatives. Possible licensor goals include:

1. Avoid Antitrust Exposure
2. Fund Further Development Efforts or Obtain Licensee Improvements
3. Leverage or Recoup Original Investment in Technology
4. Generate Income From Under-performing Business Areas

C. Other Value Drivers

The specific terms of the license (driven by a compromise between the goals of the licensee and the goals of licensor) will drive the ultimate value of the license. Possible value drivers include:

1. Exclusivity

Is the licensor able to obtain a premium for granting a single exclusive license or will it maximize its return by granting sequential non-exclusive licenses?

2. Ability to Sublicense

Will the licensee have the ability to leverage the license grant by creating its own licensees? What is the effect on the licensor's position if the licensee is able to compete with the licensor in the granting of licenses to the particular technology? The downstream effect of sublicensing should be considered in calculating the compensation to the licensor, preferably basing its return on all revenue generated from the license rather than just received by the licensee.

3. Field of Use

Is the licensor able to limit the scope of the license to only that field needed by the licensee and reserve remaining areas for itself or subsequent licensees? A more narrow approach might make sense for a licensee because the licensee is then only paying for the specific rights it needs to achieve its goals.

4. Geographic Territory

Similar to field of use limitations, territory limitations ensure that the licensee only pays for what it needs and the licensor reserves the ability to generate potential further income from the same asset.

5. Structure of Payments

The structure and contingency of payments is a significant risk factor to be negotiated between the parties. Depending on the goals of the licensor (for example, generate immediate cash) and the goals of the licensee (for example, investment in technology development with an eye towards new markets), the payment structure could make or break the deal.

a) License Fees

The most straight-forward approach. Requires the licensor to have a pretty good idea of the value of the licensed technology and requires the licensee to have a pretty good idea of the cost of proceeding without the license.

b) Guaranteed Returns (Min/Max Payments)

Closely related to license fees. Reflects a determination on the part of one or both of the parties to remove the risk that rate of return or payment obligations will exceed the perceived value of the deal.

c) Development Funding

Useful for the licensor when it obtains a grant or license-back to improvements. The licensee may have superior capabilities for the further development of the technology and the licensor can piggy-back on those efforts.

d) Royalties or Profit Sharing

Gives the licensor a stake in the success of the licensee. Most appropriate in situations where the licensor will be providing ongoing support or assistance to the licensee and will be in a position to influence the direction of the licensee's efforts. Royalties are most easily accounted for and administered when the licensee markets a discernable product with a price that can easily be determined.

e) Equity

Taking equity represents the most extreme case of the licensor taking a stake in the success of the licensee. Most risky for the licensor since factors beyond the licensee's control may dictate the outcome of an equity transaction. *Practice note:* include a mechanism to terminate the license and recapture the technology if minimum performance requirements are not met.

6. Maturity of Technology

The amount of development required by a licensee will have a direct effect on the value of the license because every post-transaction dollar a licensee is required to pay to reach its goal is a dollar deducted from the maximum price the licensee should be willing to pay. Placing the burden of development on the licensee also increases the risk to the licensee that the technology will not perform as promised or that development efforts may not be successful. The licensee (and licensor if a profit sharing/royalty model is selected) also risks a delay in any return on the license as the technology is readied for market.

- a) Allocation of Risk/Expense to Take to Market
- b) Need for Ongoing Technical Assistance
- c) Time to Market

7. “Unique-ness” of Technology

The novelty or completeness of any technology package will influence the value of a potential licensing transaction because the more difficult and expensive the package to duplicate or design around, the greater the value to the licensee.

Tip: The ability of licensee to design around the technology diminishes the value of the license.

8. Rights to Future Developments

Rights to future developments created by the licensor may be included in any technology package. The benefits to a licensee include the ability to maintain the state of the art while eliminating the risk that a licensor will foreclose an avenue of growth by patenting subsequent developments to the technology. The reverse is true for a licensor. By using a licensee as a proxy for future development efforts by obtaining rights to use such development, the licensor gets all of the benefit of the development without taking any of the risk.

Business plans that include intended development efforts on the part of the licensor can increase the value of a license, while a licensee may be able to reduce its up-front obligations by promising to provide the licensor any improvements it makes under the license. If the exchange of improvements is a significant value driver, each party should consider including benchmarks or other objective performance requirements in the license. Further, the exchange of future developments under a license eliminates the exclusivity a party might otherwise enjoy in newly created technology. Some measure of protection from the risk that your partner may become a formidable competitor using

such cross-licensed developments can be provided through other terms in the license, such as field or use or territorial limitations.

9. Regulatory Requirements

Required governmental approvals or the need to clear other hurdles before commercialization increases the risk to the licensee, increases the cost, and delays the opportunity to realize a return from the license. The likelihood of obtaining such approvals should be realistically assessed as this will affect the value of the license.

D. Key is Balance

Overall the key is balance. Each party should know what it is trying to achieve under the license before walking in to negotiate the deal. The goals of negotiation should be to provide the licensee with an incentive to make the further investment necessary to obtain a return on the license and to provide the licensor with enough of that return that the deal is worthwhile.

Goal of Licensee: Incentive to take technology to market.

Goal of Licensor: Sufficient return on investment to justify transfer.

E. Determining a Reasonable Royalty

The primary factors for determining the amount of a reasonable royalty as a recovery in a successful infringement action are outlined in the case of *Georgia-Pacific Corp. v. U.S. Plywood Corp.*, 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970); 446 F.2d 295 (2d Cir. 1971); *cert. denied*, 92 S.Ct. 105 (1971). Although not directly assembled for the purpose of assessing an arm's length transaction, a review of the factors is helpful in determining what an appropriate amount might be.

1. The *Georgia-Pacific* Factors:
 - a) Existing royalty arrangement for the patent in suit;
 - b) Rates paid by the licensee for use of comparable patents;
 - c) Nature and scope of the license, exclusive vs. non-exclusive, restrictions as to geography etc.;
 - d) The licensor's policy with respect to licensing its patents;
 - e) Commercial relationship between the parties;
 - f) Effect of selling the patented product on the ability to sell other products;
 - g) Duration of the patent and the term of the license;
 - h) Established marketability of the product made under the patent;
 - i) Advantages over old modes or devices;
 - j) Nature of the invention and the benefits;
 - k) Extent to which infringer has used the invention;
 - l) Portion of profit that is customary to allow for use of the invention;
 - m) Portion of the profit that should be credited to the invention as distinguished from non-patented elements or improvements added by the infringer;
 - n) Opinion testimony of experts; and
 - o) The amount that a willing licensor would have agreed to accept, and that a willing licensee would have agreed to pay at the time the infringement began.

IV. Typical Valuation Approaches

A. The Cost Approach –

1. The Cost to Licensee to Create or Obtain Replacement Technology

This approach is based on the cost to the licensee to substitute or design around the technology that is the subject of the license less the savings realized by the licensee by having the ability to piggy-back its developments on the earlier work of the licensor.

- a) Sets the Maximum a Licensee Would Be Willing to Pay
- b) Accounts for Accelerated Time to Market.

2. Not Tied to Licensor's Investment

Many licensors would prefer to tie the value to their own investment, however, improvements in development techniques or other efficiencies available to the licensee means that the original development cost usually has no relation to the cost of subsequent development efforts.

3. Doesn't Take Future Value Into Account

The cost approach also looks only at a snapshot in time. Future applications or growth in the technology are not considered. Nor is the need to maintain the technology.

4. Maximize Value By Demonstrating a Portfolio (a "Cluster") of Intellectual Property That Occupies Relevant Technology Space.

The goal of the licensor is to present a cluster of patents or other technology that surrounds the proposed use of the licensee and makes the process of attempting to design around or otherwise avoid the technology much less attractive. Identifying such clusters prior to licensing efforts should be a goal of the patent mining process.

B. The Market Approach -- Compares What Others Have Paid For Comparable Technology

If a particular royalty rate is typical for an industry or market segment, it may not be relevant what the cost to develop or to design around. In many instances the costs of obtaining such licenses is simply built into the margins of the eventual product and passed on to purchasers. However, when various factors are considered (see Section V. above), it becomes apparent that many deals may be apples and oranges. The market approach is an easy shortcut when the parties haven't determined the true value of the license for themselves and relevant, reliable data is available for review.

Problem: No two deals are alike.

- a) Intellectual Property is By Definition Unique
- b) The Overall Structure and Timing of Compensation Structure is Relevant
- c) Doesn't Take Into Account Non-Monetary Benefits To The Parties

There are other impediments that limit the usefulness of this method, namely special purchasers, different negotiating skills, and the distorting effects of the peaks and troughs of economic cycles. These difficulties make it meaningless to apply any "rule of thumb."

C. The Income Approach

1. Value is Tied to Revenue Generated By the Licensee Through Exercise of the License

This method attempts to allocate to the licensor an equitable portion of the benefit to the licensee stemming from the licensee's exercise of the rights granted under license.

- a) Difficult to Isolate, Proxy Measurements Often Used

Because the licensee's success is often tied to several factors, such as further developments, market position, overall market timing, or alliance efforts, the parties usually attempt to isolate one easily measurable aspect of the licensee's performance and attribute the return on that aspect to the license. Therefore, profits or revenue are usually identified as proxy values and most royalty rates reflect a discount due to the multiple factors leading to the generation of that revenue.

b) Risk That Licensee Can't or Won't Perform or That the Technology Isn't Marketable

As in any royalty measure, the licensor takes the risk that the licensee will fail to meet expectations. Protection mechanisms should be considered such as the opportunity to recapture the technology for failure to perform or impose a minimum royalty obligation on the licensee based on the expectations of the parties.

D. Advanced Valuation Approaches

1. Monte Carlo Theory

The Monte Carlo approach is a software-based approach that provides a range of values along a probability curve based on the manipulation of various factors. For example, the simulation can provide an estimate of the effect of the current license value if the development process delays commercialization by some period of time. Manipulation of different factors can help identify which factors are most significant to the valuation process and should be considered more closely.

a) Software-Based Approach Allows for a Valuation Spread Based on Probability of Risk Factors

b) Allows for Isolation of Key Sources of Risk/Reward

2. Option Theory

The Option approach allows a licensee to obtain rights in stages, rather than committing to an entire transaction when it may not be possible to identify some risk factors. For example, a small upfront payment for an option to license may allow a licensee to complete a market study or regulatory review. Such a small payment is a reasonable investment by the licensee and provides some measure of return for the licensor in exchange for any opportunities lost during the term of the option. If, for example, the market study returns favorable results, the licensee can exercise the option with additional certainty as to the likelihood of success and is likely to be willing to pay more on a cumulative basis than it would if it were required to absorb the risk of an unfavorable market study after paying a lump sum license fee.

a) License in Stages

b) Allows Licensee to Make Incremental Investments and Avoid All-or-Nothing Commitment

(1) Decision to Proceed is Based on Most Immediate Risk Factors

c) Licensor Retains Asset if Option Not Exercised

V. Summary

The considerations discussed herein are applicable regardless of which side of the table you are on, whether you are big or small, a market leader or a start-up venture. Taking the time to identify your goals and effectively mining your intellectual property portfolio can greatly enhance the opportunities for leveraging that intellectual property in transactions with third parties. Identifying suitable partners and performing adequate diligence can mean the difference between failure and success. Finally, knowing what technology is worth (or just worth to you) allows you to negotiate from a position of strength and to know when to walk away from the deal.