

Valuing Patents, Technologies and Portfolios: Rules of Thumb

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Introduction

“What’s it worth?” This is one of the most-asked questions in Intellectual Property today.

Sometimes the “what” is a specific patent being considered for “stick” licensing. Sometimes it is an entire patent portfolio being reviewed for portfolio “mining” purposes. And, at other times, a patented technology is assessed for its “carrot” licensing potential.

First, let us define these terms. “Stick” licensing is licensing infringers of a patent. “Carrot” licensing is licensing a patented technology, such as a new, better or cheaper mouse trap. Portfolio “mining” is reviewing and analyzing an entire portfolio of patents or a large group of patents, to identify carrot and stick licensing opportunities, and then licensing the carrots or sticks to realize their value.

The follow-up question is: “What will it cost to realize the value of the patent or portfolio”?

Valuing carrots, sticks and portfolios is a complex and challenging task.

Carrots and sticks have been valued using various approaches.¹ None of these approaches applies easily or inexpensively to large portfolios, so that sophisticated sampling techniques are also needed when a portfolio is being assessed, unless you want to evaluate the portfolio patent-by-patent, a formidable task for a large portfolio.

Why do these questions need to be answered? Usually, an answer is needed because a patent owner would like to realize value from the carrot, stick or portfolio and wants to determine initially whether the expense of realizing the value is likely to be justified by the return. In those situations, spending a lot of money up front to do a sophisticated analysis of the patent, technology or portfolio may not be needed to get the process started and may be a wasted expense. There is a “chicken and egg” aspect to this. Do you need to value the patent or portfolio before beginning to realize the value? Or, can you first *estimate* the value and then devote more resources to *realizing* the value, rather than *determining* the value?

In initiating the licensing program, knowing whether the licensing program may generate \$25 million of licensing revenue in three years or \$75 million in five years is less important than knowing whether an expenditure of \$3 million to litigate the patent makes sense, because, if successful, it will generate *at least* \$15 million for the patent owner.²

1. Some of the approaches are: investment rate of return analysis; discounted cash flow analysis; 25% of profits; and comparable license transactions.

2. Of course, there are times when having a more precise insight into the value of a patent or portfolio is important, such as pricing for a sale or valuation for transfer tax purposes. In those cases, more than a Rule of Thumb is needed, and this article is not intended to address those needs.

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Valuing a Single Patent or Family of Patents

The equation that we developed for evaluating (again, *qualitatively*) a carrot or stick licensing opportunity, with a single patent or a family of patents, is:

$$V = p.v.(X*Y*Z) - \$$$

where

V is value we wish to estimate (of the carrot or stick opportunity),

p.v. means present value,

X is the percentage likelihood that the infringement case will be won (in stick licensing) or the new/better/cheaper product will be commercially successful (in carrot licensing),

Y is the applicable royalty that can be realized by licensing the carrot or stick,

Z is the applicable royalty base, over a period of years, which can be assessed on a per company or per industry basis (or both), and

\$ is the cost of the litigation, in stick cases, or, in carrot cases, of the completion of development (if appropriate) and the licensing program.

If a patent is being litigated or licensed on a contingent fee basis⁴, the equation

becomes

$$V = p.v.(X*Y*Z*\%)$$

where

% is the contingent fee percentage, and the other variables are unchanged.

Let us address how we understand and determine the values of the variables in the equation. For convenience, we'll call this equation the "XYZ equation."

P.V. represents the fact that the revenue from licensing the patent is received over a period of time, usually as an ongoing percentage of royalty-bearing sales. That means that Z, the royalty base, is developed over time and usually commences several years after the assessment is made.⁵

³ If stick licensing is involved, we spend a lot of time evaluating the patent, by review of the file history, prior art, etc. This cannot be handled by Rules of Thumb.

⁴ It is well known that some law firms will handle patent infringement litigation on a contingent fee basis. It is less well known that some licensing organizations will handle carrot licensing programs on a contingent fee basis.

⁵ In the case of carrot licensing, the time delay is for creating and completing the licensing program, having the licensee complete development of the licensed product and commence commercial introduction and then six to twelve months before the first royalty check is received. In stick licensing, the time delay is to develop the licensing program and, if necessary, to succeed in litigation.

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Summary

We have presented two equations that we use to guide us in assessing, on a qualitative basis, the value of an individual patent or family of patents, and in valuing an entire portfolio of patents.

We pointed out that these approaches are Rules of Thumb and are not intended to provide a quantitative evaluation of the patents or portfolios considered.

⁶ This will depend on whether the infringer has received actual or constructive notice of its infringement. These considerations are outside the scope of this article.

⁷ We are, however, X and Y experts, and we say so.

⁸ In our analysis, we don't take into account up front payments, minimums, etc. They must be considered in developing the Term Sheet, but are needlessly complicating in our simplified analysis.

⁹ If both, the XYZ equation will have to be computed twice, once for each alternative.

¹⁰ A picture claim protects the product pictured in the patent drawings, but no more. It is a "narrow" claim.

¹¹ We apologize to foreign colleagues if this sounds chauvinistic. We understand the U.S. market and U.S. patents. You can apply this analysis to your country. Of course, because of the size of the U.S. market, companies in other countries often look to the U.S. as an important component of their licensing programs and must therefore look at the U.S. portions of their portfolios, too.

¹² A wasting asset is one which loses value, over time, which cannot be replenished, as with the loss of patent term as time passes.

¹³ It should be noted that there are many strategies that can be used by the company in need to realize value from the portfolio sooner, rather than later. This may involve lowering revenue expectations, but the company in need won't mind receiving less licensing revenue sooner.

¹⁴ Even with the six year patent statute of limitations, it is very difficult (but not impossible) to generate value from an expired patent.

¹⁵ Together with Arthur Andersen, our strategic partner, we developed sampling techniques for sampling randomly patents from a portfolio and extrapolating from the analysis of the selected patents to the value of the entire portfolio. This makes the evaluation of the portfolio more efficient and much less costly than evaluating every patent.

When a patent or family of patents has been identified as valuable for carrot or stick licensing, and the appropriate resources committed to the project, a lot more work must be done to establish the infringement case or the licensing program.

Once the value of a portfolio has been estimated, a lot of work remains to identify the valuable patents and technologies and realize the value.

A detailed discussion of the strategies and efforts required to realize the value of the patent or portfolio is beyond the scope of this article. However, we hope that sharing our insights will make it easier for licensing executives, consultants, patent attorneys and others to identify the value in patents and technologies, so that the patent owners can authorize the portfolio mining, patent licensing and, when necessary, litigation programs which will allow them to realize well-deserved rewards.