

## Price Your Case: Expected Value Calculations In Patent Litigation

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### Abstract

*When a complaint is served, most defendants ask, “Can I win?” The ability to qualify the risks related to litigation is often challenging. Some may even call it next to impossible to do, but this is exactly what litigants should attempt to do when managing patent litigation. A second question also asked by both parties is: “How much will this cost me?” Whether the parties are math oriented or not, natural human instinct includes sizing up the odds and estimating the costs. This whitepaper suggests that case probability analysis can be done more accurately by applying some basic mathematical principles. Doing so results in better decision making. This said, in order to evaluate risk more accurately, two core areas of expertise must morph together in order to compute an accurate result. First, a proper balance of legal acumen must inform the analysis; and, second, the statistical calculations must be performed correctly. In other words, even if you have the legal part right, case managers must be able “get the math right” as well. This whitepaper presents the basics of case probability analysis and identifies a few of the pitfalls to avoid. These are the first steps to making better case management decisions.*

### Probability Analysis: Patent Litigation Case Models

There is little debating the notion that legal rulings should be made based upon the merits and correct application of legal standards. Nevertheless, as evidence and arguments build for both sides, the clear application of legal standards sometimes begins to include risk regarding precise interpretations. An inventor’s claim element teaching a “yellow bottle” may appear clear and convincing on its face, but what happens when the opposing expert says it is a “greenish-yellow bottle?” What if the laboratory notes suggest that a “brownish yellow bottle” works just as well? Where does the legal standard sit when the inventor admits that a “blue bottle” would work just as well, but his best method of practicing his invention is a yellow bottle because it is “easier to see the contents?” What happens if a jury is confused about exactly what “clear and convincing” is supposed to mean when deciding this confusing case?

A reality of litigation is the inclusion of risk, regardless of seemingly simple statutory language. Risk is measured by probabilities, and the best possible determination of these probabilities must be part of the financial calculations used to help manage the case. Contrary to popular opinion, probabilities are not nearly as difficult to compute as many people believe. Correctly applying case probability analysis is critical to litigation management and an essential tool for intellectual property managers and licensing professionals.

### Case Dockets: A Basic Framework For Probability Analysis

Patent litigation is governed by procedures and rules, and these offer a framework for probability analysis. At the end of the day, winning, losing, or settling may not be the result of a single decision, but rather a series of decisions (singular events), outcomes, and appeals. The court’s case docket offers a map of these events.

The most common jurisdiction for patent litigation is the Federal Court system. For the purposes of this discussion, we will generally focus on traditional Federal Court patent cases<sup>1</sup> for examples. This noted, the Federal Court follows statute and case law using procedures covered under both the Federal Rules of Civil Procedure and the Federal Rules of Evidence. The first step in building any model is to understand the basics of what will occur—the “docket” in this case. This is the road map of how a case will progress through the court system.

Returning our focus to probabilities, the simplest model possible begins with our first question: “Can I win?” Let’s suppose for the sake of demonstrating

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1. PACER Federal Civil Court category 830 cases. Another common jurisdiction is the International Trade Commission (ITC) using administrative law procedures to stop the import of infringing products.

the model, that we had the benefit of a psychic who could answer this question only in an unusual way. Let's suppose our psychic could not tell us an absolute "yes" or "no" but instead could provide other information with certainty. Our psychic could predict: "You will spend \$3.6 million on legal costs and your opponent will spend \$4.9 million fighting you." Our psychic also tells us: "You have a 42 percent chance of winning. The legal fight will take 48 months. They will not appeal, and, if you win, you will win \$25 million?"

If this information was all you had, you would easily be able to construct a basic mathematical model to value your case. If the case had a positive expected outcome, you might move ahead. On the other hand, if the case appeared to be a loser you might never file at all. For the defendant, this information might help determine whether to settle or keep on fighting. It might even tell both parties what a fair settlement offer might be and when it might be appropriate to walk away from the table.

This idea of using a "psychic" is actually simple and would work, except for one basic problem. There are no psychics who can provide this type of precise statistical information. On the other hand, perhaps an educated guess is better than not bothering at all with probabilities? We place our bets by making the best analysis possible, even if educated guesswork substitutes for our hypothetical psychic predictions out of sheer necessity.

## Single Event Case Model: How Is It Modeled?

The model described above is one of the simplest litigation scenarios possible. It is a single event model. The missing mathematical input is the "discount rate" or effective interest rate that the parties would pay or receive relating to the time value (cost) of money. Cash is always worth more today than cash 48 months from now. Let's suppose your opponent says, "OK, I'll give you \$25 million in 4 years; or, if you like, I'll give you some money today. Make me an offer." Your answer would determine the discount rate. For businesses, this rate typically reflects either the interest the business pays to borrow money, or the return the business makes on invested money (or something in between).

Using 10 percent as a discount rate, the expected value of the plaintiff's case is calculated as the damages times the probability of winning, discounted at 10 percent annually (for 4 years), less the legal costs, also accounting for when they are actually paid. In this example, legal costs are paid up front merely to

simplify calculations:<sup>2</sup>

$$E_{\text{plaintiff}} = ((P_{\text{win}} \times \$_{\text{win}}) \times (1 - R_{\text{discount}})^{\wedge} (\text{months}/12)) - L_{\text{costs}}$$

Applying the data:

$$E_{\text{plaintiff}} = ((.42 \times \$25,000,000) \times (1 - .10)^4) - \$3,600,000 = \$3,289,050$$

Note that there is also a .58 chance of losing (times zero dollars) and a 100 percent chance of paying the \$3.6 million legal costs (unless a settlement is negotiated). Since losing is multiplied by zero, it is not shown in the equation.

The defendant, who asks: "How much will this cost me?" can make a nearly identical calculation (preceded by a negative sign), also assuming a 10 percent discount rate, noting that  $P_{\text{loss}} = P_{\text{win}}$ :

$$E_{\text{defendant}} = -(P_{\text{loss}} \times \$_{\text{loss}}) \times (1 - R_{\text{discount}})^{\wedge} (\text{months}/12) - L_{\text{costs}}$$

Applying the data:

$$E_{\text{defendant}} = -((.42 \times \$25,000,000) \times (1 - .10)^4) - \$4,900,000 = -\$11,789,050$$

Note that the defendant also has a .58 chance of winning (times zero liability) but a 100 percent chance (under U.S. law) of paying the \$4.9 million in legal costs (unless a settlement is negotiated). Again, this is not shown in the equation above.

In this example, the plaintiff began with a claim of \$25,000,000 in damages, but the litigation costs, probability of winning, and time value of money discount the case rather dramatically. Specifically, at the time of filing, the expected value of the case using the "psychic's" probabilities is only \$3,289,050. This is less than the anticipated legal costs (but after payment of legal costs).

On the other hand, the expected cost of the case the instant the complaint is served to the defendant is calculated as \$11,789,050. This means that when the complaint is opened and the defendant asks, "How much will this cost?" one way of answering is to say, "If you are average, it is likely to cost about \$12 million." Again, the actual probability of a loss in court and four year delay before the li-

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2. "E<sub>plaintiff</sub>" is the expected value of the case to the plaintiff. "P<sub>win</sub>" is the probability of winning. "\$<sub>win</sub>" equals the amount the plaintiff will win. "R<sub>discount</sub>" is the annual discount (interest) rate applied to convert to present value. "Months" refers to the time between filing the complaint and receipt of payment. "L<sub>costs</sub>" equals the total legal costs the plaintiff will incur, assumed to be paid up front for simplification. Again, the notational format "E" is for "expected value" with subscript identifiers. "P" refers to "probability."

ability is realized greatly discount the initially onerous \$25,000,000 potential damage claim. Under United States law, both litigants usually pay their own legal costs and this works against the defendant by adding \$4.9 million to the discounted liability expectation.

The imbalance in this case is typical of patent litigation and suggests a stability point between Eplaintiff and Edefendant. In countries operating under a “loser pays legal fees” system, the incentive to settle is lowered but so is the incentive to sue. This point has been discussed in many articles and legal opinion columns, and case probability analysis demonstrates the effect clearly.

Another way to look at a possible settlement is to apply an approach of minimizing the “dissatisfaction” of both sides by splitting the difference between the expected outcomes. Indeed, if both parties believed our “psychic” and further recognized how uncertainty can diminish the price of their company’s stock, indeed they might decide to split the difference and call it a day. The overall “wealth” of the shareholders may even be maximized by such a decision. Of course, in the real world there are often differences in the way case outcomes are viewed and therefore settlements are not always motivated. For example, a defendant CEO may believe that settlement in one case will open the door to more actions and therefore resolve to “vigorously defend” at all costs. These concerns are discussed later.

## Appeal: An Unavoidable Impact On The Litigation Model

After the lower court decides a case, there is a legal right to appeal. In high stakes patent litigation, appeals are common because the damages may far outweigh the legal costs of appeal. To suggest that a model should not account for the secondary risk of appeal is simply flawed; therefore the “single event model” above is not adequate alone to drive case decision making. The reader may assume that the plaintiff can simply elect in advance not to appeal, but this is incorrect. Indeed it is the losing party who controls whether or not the case progresses to the appellate courts; therefore, appeal must be factored in. The risk of appeal is unavoidable and must be included in the model for the results to be accurate.

In the example above, the probabilistic effects of appeal are significant. When legal costs of zero (for this example) are assumed but the chance of an appellate court reversal<sup>3</sup> is accounted for by applying  $P_{\text{appealwin}} = .80$  to the win or non-zero portion of the equation, the expected outcomes change

dramatically, as follows:

$$E_{\text{plaintiff}} = (P_{\text{appealwin}} \times ((P_{\text{win}} \times \$_{\text{win}}) \times (1 - R_{\text{discount}})^{\text{months}/12})) - L_{\text{costs}}$$

$$E_{\text{plaintiff}} = -\$536,256$$

$$E_{\text{defendant}} = -(P_{\text{appealloss}} \times (P_{\text{loss}} \times \$_{\text{loss}}) \times (1 - R_{\text{discount}})^{\text{months}/12}) - L_{\text{costs}}$$

$$E_{\text{defendant}} = -\$7,963,744$$

The appeal model assumes a 20 percent reversal rate or probability that the appeal process will reverse the original ruling. In this case, the plaintiff’s expected present value of a \$25,000,000 potential case win has actually turned into a negative number. The expected cost to the defendant has been further reduced from \$11 million to approximately \$8 million. Factoring in the risk of appeal certainly makes patent litigation less attractive.

Knowledge of the statistical impact of appeal could (and should) also effect a settlement. In the example shown, an original “total dissatisfaction minimization” settlement point of about \$8 million appears to have been ill conceived when the probabilities of appeal are factored into the model. In this case, the same philosophy applied to settlement would suggest that a number closer to \$4 million might be appropriate. As an aside for readers interested in selling patents with known significant infringement damages (so-called “blockbuster cases” sought by entities operating under the “buy and assert” business model), these models help reveal why the selling (and auction) prices for such patents are often only about 10 percent of the estimated damage claim. Would you pay \$2.5 million for a chance at a \$4 million settlement, especially knowing that the expected value of the case is a negative number?

## Discovery: Determining Numerical Inputs For The Model

At this point in the discussion, it is important to address two key points. First, although a very basic model has been demonstrated, it is all that is necessary to build more complex models by simply chaining the calculations together to reflect the various events expected as the case progresses. This is how the effects of appeal are included in the model. Second, thus far in our illustrations we have yet to fully resolve the problem that “psychics” with a perfect ability to predict the probabilities simply do not exist in real litigation. This issue will now be addressed.

3. These calculations were completed using an online Case Probability Analysis Tool which assumed a 20 percent chance of reversal of either outcome.

If we can see that a model has the potential to aid case management decision making, then determining statistical data to input into our model merits our investment of time and energy to facilitate better case management. The answer lies in several sources:

- Experts and consultants
- PACER derived statistics and other studies
- Legal counsel
- Management judgment (“After all, who’s decision is it?”)
- Other methods, such as mock arbitration or mock trials

Indeed the numerical choices used in the “psychic” predictions are not inconsistent with typical cases. While there are “rocket docket” cases that can try a case in a year, four years is more typical. Some might see our estimate of legal fees low while many others may find them coming up short. Finally, even the best jurisdictions for IP owners barely offer 50/50 odds and many others tend to be lower. When using these calculation methods for a specific case, it is important to continually research and include the best statistical data available. Research into similar cases (or all cases as a whole) may be useful. More uniquely, “mock trials” may help shed light on possible outcomes. In one matter discussed while researching this paper, a mock trial demonstrated to the CEO that a key engineering witness was so likely to impact the probable outcome that a successful move to settle was made.

## Innumeracy: Misconceptions In Probability Analysis

The term “innumeracy” originally came from Douglas R. Hofstadter who authored several columns in Scientific American magazine. Innumeracy refers to an inability to understand the simple mathematical principles that run people’s lives. The term is also the title of a book<sup>4</sup> by John Paulos, which postulated that mathematical illiteracy can cause everything from bad public policy to, in these examples, making some very bad legal decisions. While “back of the envelope” calculations might be helpful, misunderstanding probability calculations, other careless math, or simply ignoring the full scenario of possible events can lead to “innumerate” case decision making. The results can be disastrous, except perhaps for the chance that the other side may also suffer an equal or greater level of “innumeracy.”

## Let’s Consider Our Example:

In actual practice, the “appeal factor” has a surprising effect on the calculations and drops the expected value by more than most people would think. This is primarily for several reasons, including the time delay before receiving (or paying) an award, the additional legal costs (when included), and, of course, factoring in the assumed probabilities of reversal or remand.

Another common error is to ignore the probability effects of interim motions and other seemingly routine events. A motion to change venue may not have been factored into your original model, but a change of venue can suddenly shift probabilities. In another example, an additional motion for reconsideration can also shift probabilities. This is particularly true when the odds are skewed dramatically in favor of one side. If a party wins at the appellate level with 97 percent chance of success moving to the Supreme Court, a motion to review en banc, while only having a 10 percent chance of success can have a surprising effect on the original 97 percent chance of winning (largely driven by the most likely outcome which is to say that the USSC would not take the case). In this case, the .97 probability is multiplied by the .90 probability of winning en banc to reflect the conditional requirement that winning both events is required for a final success. The combined probability is .873. In terms of “odds” the chances of winning were roughly 29 times out of 30 and have suddenly dropped to less than 9 out of 10. While still not good, this is a surprising and significant improvement in the loser’s beginning position for a relatively low investment in legal fees (assuming valid arguments for the en banc appeal can be found).

Again, while a win is still likely, the net shift in odds is dramatic and a three fold improvement of the loser’s position. Intuitively, most people would not think the motion en banc would have this effect but this is not all the motion accomplishes: it also delays payment for the loser and further discounts the value of the win for the winner. In the hubris of an appellate win, a motion en banc is often brushed off by innumeracy when, in fact, understanding the statistical impact of such an event is important to the mathematically literate case strategist. The educated “winner” may want to at least think about the value of an appropriately discounted but reasonable settlement offer coincidentally timed with the motion en banc. A ten percent savings on a multi-million dollar settlement can make the mathematically literate practitioner or licensing professional well worth his salary.

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4. Paulos, John Allen (1990). *Innumeracy: Mathematical Illiteracy and Its Consequences*. Vintage Press.

## Control Points: Effectively Using These Elements

The commentary above drives a critical point home: Once both parties engage, neither party controls the case events alone. This point is amplified if there are counterclaims.

To this very point, a conclusion made by either party that they can always choose not to appeal (and therefore leave the appeal process out of their case probability model) is simply “stinking thinking.” If you win, the other side controls appeal and if you lose, while you generally can choose not to appeal, you may still lose control. The same applies to many other types of filings, including motions to change venue, delays, discovery disputes, motions for reconsideration, or in limine moves to block experts, suppress evidence, etc. Each of these events has an effect on the overall probability of the desired outcome.

Sometimes the combined effect can be dramatic. For example, if a defendant can introduce an event with just a 5 percent chance of causing the plaintiff to lose, and then do this five more times, the plaintiff’s originally brilliant chances of winning drop to just over 75 percent. On an individual basis, it is sometimes appropriate to consider the cost of an allowable legal move in terms of its impact on the overall chain of events and combined probability.

## Examples: Why Some Cases Settle And Others Do Not

The application of simple game theory suggests that significant differences between expected plaintiff value and defendant cost should logically lead toward the more stable point effecting settlement. Conversely, if the expected plaintiff value exceeds the defendant’s expected cost, there is no stable equilibrium to motivate settlement and the courts may eventually decide which party wins. This sort of “inversion” is seldom found in the model, but occasionally occurs if legal fees, damages, or other significant costs are paid by a third party without control over the case. In these unique, but more complex situations, the model normally remains predictive of behavior among the parties that do have control over voluntary dispute resolution.

Given the number of settlements which occur on the eve of trial or, for patent cases, sometimes following a Markman ruling, there is evidence that probability based financial calculations may contribute to settlement decisions. Some may also suggest that corporate patent disputes may be less anger driven or emotionally charged than other types of

disputes. To this point, business pundits have even noted how Silicon Valley companies have continued to work on joint product development while fighting ongoing patent lawsuits with one another.

Notwithstanding the observations above, a better understanding of the factors which may effect a successful settlement is important to IP practitioners. Indeed, “game theory” is just that—a theory—and while there are many cases that support the validity of such theory, many simply do not.

In researching settlement motivations in patent litigation, the authors gathered inputs from a number of experienced IP professionals. Examples of settlements (and common themes) that came about because of non-probability motivations were examined. The authors also discovered case events that affected the perception of case probabilities in unexpected ways.

Here is a summary of case settlement motivations:

### Removal or Loss of Available Legal Fee Funding

When we asked if cases settle simply because one party runs out of money, one attorney quickly answered, “It happens all the time.” Further clarification confirmed that such occurrences are less common in corporate patent litigation versus general civil litigation; nevertheless, corporate budgets do shift and cases can be essentially abandoned. For smaller companies or individual inventors, the financial distress related to the litigation can cause involuntary abandonment or settlement.

### A Significant and Unanticipated Event

A sudden change in status can sometimes motivate a settlement in patent disputes. The examples of such instances are as varied and unpredictable as the types of events themselves; such as unrelated court rulings (e.g.—an unexpected product liability ruling), a new business opportunity (shifting funds, for example, to a unique acquisition opportunity), unexpected obsolescence (a new technology makes future damages/royalties worthless), an unexpected change of management (litigation averse), the sudden interest of a prominent scientist, religious, or political leader (indeed, a respected professor can step in to settle a patent dispute in some countries and cultures), influence from a mutual customer (time for the suppliers to stop fighting), and more.

### Opportunities to Work Together

The discovery of ways and reasons to work together sometimes motivate more productive settlement discussions. This was a fairly common theme, especially among mediated settlements.

This one reason is why experienced practitioners always try to keep discussions open and respectful as litigation proceeds. These sophisticated practitioners sometimes offer patented technology as a complete “technology transfer package” including access to improvements, know how from the original researchers, etc. Relying upon an old philosophical saying, “The Gypsies always pay their doctor,” the lesson here is that a future basis to make money together can often move the parties to ask, “So tell me again why we are fighting?” Mediators report that this sort of discovery is one of the more common ways to help the settlement discussions move forward.

## **Merger or Acquisition**

Our research also demonstrated that merger or acquisition can end patent litigation, going back to the popular expression, “If you can’t beat ‘em, join ‘em.” Acquisition of a third party producer that already has a license (transferable to successors or assigns) can end litigation. When one producer has favorable terms (perhaps from taking a license early), this may increase the stock value of the company because it is an acquisition target for a much larger producer based upon the present value of its favorable royalty terms.

## **Hidden Motivations**

Cases sometimes settle or end because of hidden reasons, leaving outsiders wondering what happened. One attorney, without disclosing parties, related a story of a CEO that had won the first round only to mysteriously settle the case after a one hour meeting with the other side. It was rumored that the CEO was able to conclude that a potential element from the discovery process might pose enough risk to his career and the validity of the patent to merit suddenly abandoning a fairly easy appeal process.

## **Arbitration or Mediation**

Helping settlement move forward with a skilled mediator may be one’s best option, especially as time drags on and legal bills continue to mount with no change in the probability of a favorable outcome. For those with an appetite for certain resolution, binding arbitration is a viable alternative (but both parties must be motivated to use this approach). Sometimes mediation is preferred, and mediators are the true experts in helping parties settle. They know all of the above, and much more, from first hand experience.

## **Handling Irrational Opponents: The Art Of Negotiating**

No one ever said probability and statistics was a piece of cake. This said, the probability models ap-

plicable to patent litigation are simple and easy to calculate compared to most. Unfortunately, while these models hold some promise that cooler heads and business-like thinking will prevail, sometimes the financial and probabilistic realities are overcome by emotion and irrational behaviors.

Inventor’s are most often the ones accused of “driving a point home” versus simply viewing the case as a business process and series of ongoing, rational business decisions; however, history shows that there is plenty of hubris to go around. Sometimes it is the CEO who is guilty of behaving a bit stubbornly in litigation matters. When things stay emotional or appear irrational, they probably are. Occasionally, people try to test the thesis that simply being stubborn long enough can improve negotiating posture. Perhaps they will convince the other side they really will “burn the oil wells” if things don’t go their way; but, again, this is irrational in front of sophisticated legal professionals. Irrational behavior can block a settlement opportunity that may be obvious to everyone else, and both sides can lose. These situations can be problematic for licensing executives simply trying to do a job that may include managing dispute resolution; and, of course, this type of recalcitrance sometimes demonstrates the need for a court system and its supporting law enforcement infrastructure.

Here are some tips to help level heads prevail:

- Yes, do read and practice Dale Carnegie, just like your father suggested.
- Begin by being level headed and courteous and suggest the need for a license.
- Posturing has a role in negotiations, but poorly executed posturing can hurt future chances of settlement and cost you money in the end.
- Open settlement discussions early and try to keep the door open while the case progresses.
- Use professionally prepared and credible “settlement instruments” including but not limited to third party engineering reports, accounting summaries, expert opinions, similar case law explanations, other settlements, etc. Replace uncertainty and debate with impressively presented facts, using part of your budget for this purpose.
- Offer creative licensing versus the “patent police” approach. If you can, package the patent with other value such as brand licenses or access to ongoing improvements.
- For international matters, recognize important cultural differences in communications and courtesy, for example:

- In some cultures, the word of a professor or world expert can have enormous weight to help settle a dispute.
- Be sure you can differentiate genuine agreement from patronization in your communications.
- Almost always communicate your interest in a long term relationship with the other party. Show them there is more value in joining forces than paying “patent taxes.”
- Consider the right “definition” of what the money is being paid for. For example, your licensee or litigation opponent may not have a budget for royalty payments but he may have a research budget. In yet another example, he may not be authorized to license your patent, but he may be able to buy it. Some countries even have government funding available for license fees (but not royalties or infringement damages). This sort of knowledge can be critical to success. Regardless of country or culture, the larger the organization, the more likely your target licensee will face internal rules and politics that, if overcome, can make your job of reaching settlement much easier.
- Last, but not least, always remember that “you win some and you lose some.” Consider the real winner in this comparison: Company A has won seven times and never lost a case. They have annual licensing revenues of \$4.9 million. On the other hand, Company B has litigated 34 times but only won 31 times, yet their annual licensing revenue is well over \$50 million (real world examples). Winning is good, but demonstrating the willingness to litigate when necessary is sufficient and may be all that is necessary to encourage reluctant candidates to consider the benefits of a license. I never heard someone decide to “vigorously defend” simply because the other side lost 10 percent of their cases.

## Arbitration And Mediation: When To Change The Model?

The models above can also help you determine when it might be advantageous to change venues. A popular television example of this idea is, of course, the Star Trek episode where a young Captain Kirk became the only winning Star Fleet recruit because he decided to change the rules of the game, rather than play a losing game. The lesson just might pay off if you have a handle on your probabilities and your opponent does not. For example, you may have statistical understanding of the effects of an unanticipated event and late discovery of new knowledge that comes a little too close to your risk thresholds.

The combined events may not represent a probable loss; therefore, it may still be time to “change the game to one you may win.” Your opponent may not understand the full impact of the events, so the invitation to resolve the case in a rapid and economical forum of binding arbitration is going to be up to you. Depending upon your opponent’s perspective (especially if he did not read this paper), he might just view your invitation as exceptionally generous and move amicably to the new venue.

## Conclusion: Best Practices Using Statistical Tools

Few professional IP managers view litigation positively. Rather, it is a necessary tool when disputed needs to license valuable (and costly) patents make litigation a last resort. Managing the process requires diligent and ongoing attention to several elements:

- A continual focus on the merits of the case, as well as ever changing case law.
- A continual effort to carefully communicate settlement opportunities with the potential licensee, now your adversary.
- A continual watch on budgets, goals, success (winning the motions and mini-battles) and objective recognition of failures and lost battles.

Professional patent litigation management requires one more task:

- Building a case probability model and keeping it updated, event by event, to reflect the dynamics of changes in the ultimate outcome caused by each event, motion, new case, hearing, communication, etc.

The process may seem difficult and quite a bit of careful judgment is often required. In the end, thinking through the moves and applying your strategies will be come clear and much easier. In addition, qualified experts and consultants are available to help.

There is a significant twofold benefit to pay you back for your extra effort. First, you are much more likely to make better decisions; and, second, the decisions you must make—often career making/breaking gut wrenching decisions—may be much easier within the simple perspective of looking first at the numbers. If you make the investment to think carefully about each event that may ultimately affect the case outcome, when “crunch time” comes, you may find that you feel much more confident about how you steer the case forward. And, indeed you should feel confident because case probability analysis is a valid, useful, and effective tool for litigation management decision making. ■