

The strategic counter-assertion model for patent portfolio RoI

Targeting the revenues of other companies according to the patent assertion risk they present effectively defines your patent development and external acquisition strategies

By Kent Richardson and Erik Oliver

Your CEO asks: “How much should we invest in patents this year? Which ones should we get? What is my return going to be?” Common enough questions; but often the answer is a combination of what was done in the past and what corporate peers are doing, and leaves the question of return on investment unaddressed and the action plan untied to a specific business strategy. Frequently, we see these questions asked in fast-growing high-tech companies, although the problem of calculating the return on investment crosses industry boundaries.

The answer to the problem begins with understanding that there is a group of companies holding a set of patents which your products may use and these companies may also use some of your patents. From this, we have the initial elements of a patent assertion and counter-assertion strategy. In high-tech, a new product may use over 250,000 patents – some held by competitors, some held by suppliers and partners, others held by companies far removed from your current business (eg, large corporate patent asserters). These types of patent holder respond to patent counter-assertions – if you sue me on Patent A, I will sue you on Patent X. Identifying the higher-risk patent asserters, building a patent risk model and developing your portfolio to counter-assert will enable the IP team to shift the justification for your company’s patent portfolio from an

undefined risk of other people’s patents and turn it into a patent strategy with a defined and testable business plan, and an expected return on investment.

When do these corporate patent holders begin asking for you to take a patent licence? For high-tech, usually when your company’s annual revenue exceeds \$100 million and your company begins to have a noticeable presence in the marketplace. These corporate patent holders produce products and services that may use some of your patents today or in the future. The licences and fees that they seek allow them to clear future patent risk and help them to generate revenue. Having a patent portfolio that offers a clear patent response to these threats provides tangible benefits to your corporation.

This article presents an approach for modelling the value of a strategic patent portfolio for companies in the high-tech market (eg, cloud computing, semiconductors, mobile and networking). The biotech and chemical models are similar, but require modification for their specific patent risk challenges.

Understanding your patent risks: who are your potential asserters?

In the early stages of a company’s life, it makes sense to develop a patent portfolio by filing patents that are focused on protecting R&D investment from being directly copied by competitors. These patents are directed internally – your own products, your own markets, your own roadmaps. This is a good start, but the strategy does not scale to address problems that come from a broader set of potential patent risks.

The overall process we describe for setting a patent strategy and building a portfolio is outlined in Figure 1. This process involves finding your highest risks, identifying technology areas for patent

Figure 1. Process flow for creating a counter-assertion-ready patent portfolio

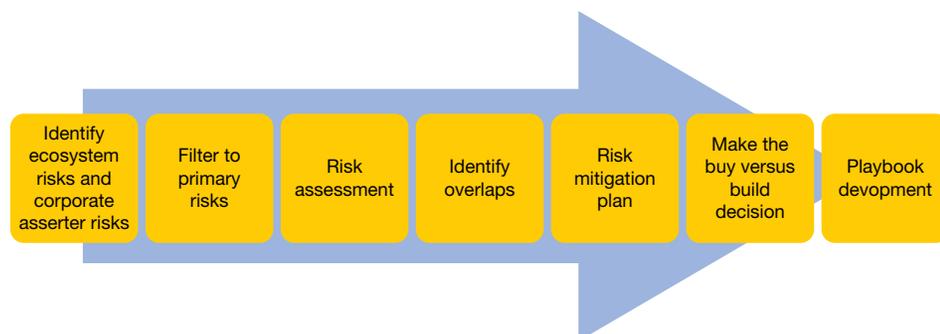
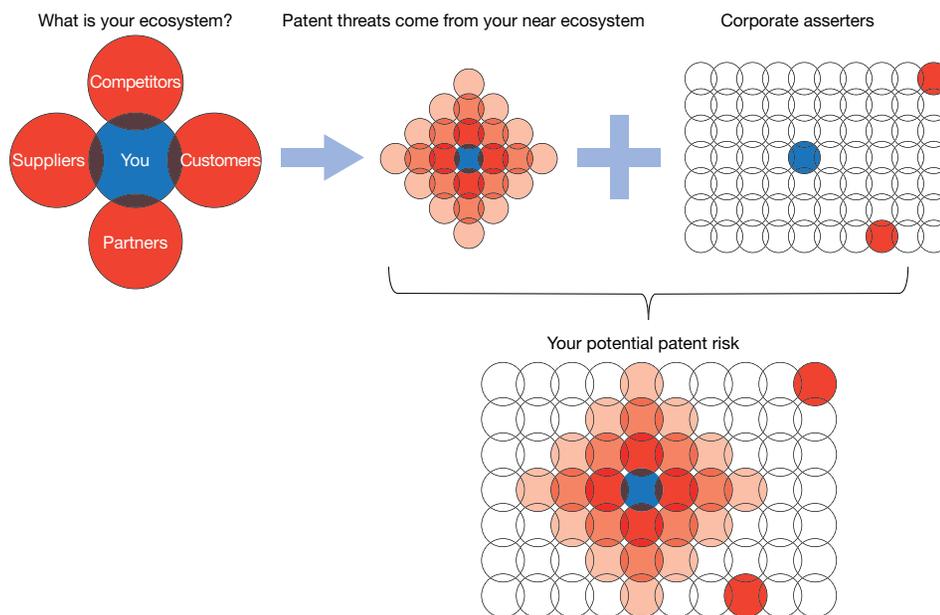


Figure 2. Your potential patent risk includes threats from your near ecosystem, plus potential corporate asserters



purchase or development that will mitigate those risks, setting a budget based upon a reasonable return on investment and then testing your portfolio to make sure that it is effective in mitigating the risks.

The first step in the overall process is to identify your key sources of patent risk. There are a variety of these sources, which go beyond direct competitors and direct copying. You can find them by looking around your business ecosystem.

Figure 2 shows a typical ecosystem, with your company at the centre. A company's ecosystem is much broader than its customers and competitors, and includes suppliers and partners. Each of these companies has its own customers, suppliers, competitors and partners. And

each may have a competing vision of its place in the value chain and may use its patents to alter its market position. The ecosystem also represents the sources of immediate patent risk.

Looking outside your ecosystem, you will find that the larger sources of patent risk are often known corporate patent asserters. These are typically large, multibillion-dollar global high-tech corporations with a history of asserting patents (eg, IBM or Microsoft). They have run sophisticated licensing programmes to generate revenue and clear patent risks for them (see “Engaging with a corporate patent assenter” sidebar on page 30). There are also patent risks from non-practising entities (NPEs). Although NPEs represent a real risk and cost, countering them does not usually involve developing your patent portfolio so we do not focus on them for this model (although they should be factored in your broader IP strategy). NPE risk can be countered using other models, including using defensive aggregation solutions such as AST, OIN, RPX and Unified Patents.

Having identified two primary forms of risk on which to focus – close to you in your ecosystem (but broader than just competitors) and large corporate patent asserters – the good news is that a well-developed patent portfolio, reduces these threats by offering a strong assertion/counter-assertion position. A well-developed portfolio is targeted at both of these threats and is paired with playbooks for responding to the identified threats. Having such a well-developed portfolio offers you the ability to defend your R&D investments against competitors, creates freedom to move into new markets, deters corporate asserters and can eliminate licensing fees.

Defining a winning patent strategy

When you hear the term ‘winning’ with regard to a patent strategy, it is tempting to think that this means that your company has the patent portfolio with the patents that would win the day decisively if a dispute went to court (ie, in every instance of every threat, your patents would prevail in court). Clearly, the ability to successfully litigate your patents is important; but our experience shows that a winning patent portfolio strategy includes more than just winning in court – it helps you to avoid court all together.

A winning patent portfolio strategy deters patent threats from members of your ecosystem (offering you greater freedom to operate in your ecosystem), and provides the

means to eliminate or substantially reduce payments to corporate patent asserters (see “Litigation patents versus licensing patents” sidebar on page 32).

In the high-tech market, a member of your ecosystem or a corporate assiter will seldom try to eliminate you from doing business solely through a patent litigation (we differentiate between stated threats of injunctions and actual outcomes). More typically, as your company achieves success (revenues, market size, market penetration), other companies are incentivised to get a share of your profits in the form of patent licensing fees or adjustments to an existing supplier/customer deal with your company.

We define a winning patent strategy as one that allows you to keep more of your revenue, at the price of a reasonable investment in your patent portfolio. From this definition, we can build a financial model showing you the return on your investment in your patent portfolio.

Take, for example, the case where a company in your ecosystem is considering seeking licence fees from you. In one scenario, it could look at your patent portfolio and, if it finds that you have a patent portfolio that is relevant to it, could simply decide not to approach your company because it sees your portfolio as a real risk to it. In another scenario, the assiter may begin a licensing discussion, but cease this once it sees your counter-assertion patents. Or you might be able to enter into a cross-licensing agreement where you pay no or substantially reduced licence fees or receive payments from the other company.

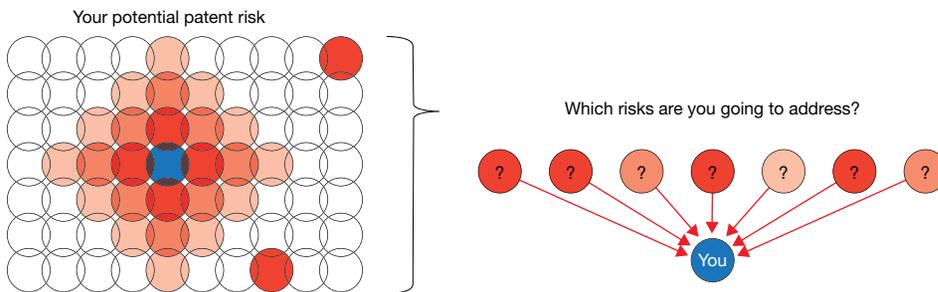
None of these scenarios includes litigation or a litigation win; but all represent business wins. In each case the patent strategy has either eliminated a threat before it showed up or materially improved a licence agreement.

Calculating your risks

Once you have identified the members of your ecosystem and potential corporate asserters, you can begin the process of understanding your patent risk and its dollar value.

This analysis calls for skills that, in addition to a traditional legal analysis, draw on market forecasting and prediction. It also requires comfort with handling unknown variables, approximations and estimates. During the analysis, you will be looking towards the future to create an estimate of which companies (ecosystem plus corporate asserters) are likely to assert their patents, when that assertion might happen and what the business cost might

Figure 3. Identifying patent risks requires identification of the most likely potential asserters



be, and then compare these estimates against your company’s existing portfolio to test for adequate patent coverage to respond to the threat.

Calculating risks first requires filtering out your least likely potential asserters (see Figure 3) to identify your highest risk of patent assertions. Each potential assiter poses a unique risk, has a unique value and should be considered individually in your overall patent strategy. So the first step is to identify your most likely potential asserters.

To do this, look in your near ecosystem (as defined above in Figure 2) for the competitors, customers, partners and suppliers that might present a patent risk. Next, add in known corporate patent asserters. Then, apply filters to decide which of these would be most likely to assert. Usually, you know your biggest risks immediately; but the exercise is important because the list evolves and changes over time (usually slowly, but changing nonetheless).

You can make some fundamental assumptions about who is likely to assert against you and how much they are likely to expect in licence fees or how much the dispute is likely to cost you (see “High-tech patent licensing” sidebar on page 35). Some companies will present a minimal risk, which is below a threshold where you need to take strategic action. These include smaller companies, companies with which you have strong relationships, companies with few or no patents and companies focused in areas where you see your business moving in a different direction from that company’s interests.

However, to find your most likely asserters, you need to ask the following questions:

- To whom are you most important?
- Which competitors are most threatened by your business?
- Which customers are paying you the most revenue?
- Which suppliers are trying to move

Engaging with a corporate patent assiter

What does a corporate assiter licensing engagement look like? A typical corporate assiter will present between three and 10 claim-charted patents as part of a licensing engagement. These will often have older priority dates (between 12 and 20 years from priority – that is, 1995-2003 in 2015) and typically relate to what are now broadly adopted, fundamental technologies (although ‘relate’ does not mean ‘actually infringed by’). The assiter will explain how it has tens of thousands of other patents and will present not only the patent infringement case, but also its long and well-known history of innovation. The engagement itself will involve back-and-forth negotiations over the course of 12-plus months. The corporate assiter uses a team of experienced patent licensing professionals, who will present the infringement case, while also being open to fact-based counter-arguments about why the presented patents are not applicable to your business. Thus, the assiter’s primary focus in the negotiation process is to convince your company of the reality of the risk from the presented patents, as well as the assiter’s portfolio, with the aim of obtaining a payment of licence fees to the corporate assiter, or some other beneficial terms.

- upmarket or are the most crucial?
- Which companies in your list have demonstrated a willingness to promote, assert or litigate their patents?

The areas where you have a stronger business or present a bigger threat to a competitor will be the areas where you are more likely to want to protect yourself from assertion. Areas where your business is declining or where a relationship is strong will be of less interest to potential asserters. For example, low-growth, low-revenue businesses generally do not attract patent assertions.

Corporate asserters should then look at recent history. Who has recently filed against other companies in your ecosystem? Who likely holds a strong portfolio in your technology areas?

As an example of this analysis (see Figure 4), take a company called YouCo. YouCo is a 10-year-old high-tech company with more than \$500 million in annual revenue and is on track to grow to \$1 billion. YouCo has a smaller patent portfolio, approximately three years old, with fewer than 50 issued patents and fewer than 100 pending patents. It has had a few NPE suits, its sales team has identified some competitive threats and it may have been contacted by one corporate patent assenter (licence taken).

After looking at its ecosystem and the corporate patent asserters, YouCo has filtered the list to four companies

that present patent threats which need to be addressed. (Note that in most client models, we model eight-plus threats.) For this example, the four threats for YouCo are Customer A, Competitor B, Supplier C and Asserter D. Having filtered this threat list, YouCo then identifies each company's potential assertion risk value.

YouCo first identifies the scale of its total patent risk with each of these companies. YouCo can make certain assumptions about the limits of these risks (see "High-tech patent licensing" sidebar). YouCo can then combine these numbers to calculate the potential total cost of a dispute with each of these potential asserters. In most cases, predicting this cost is not just a matter of looking at the cost of licensing fees; it also includes the cost of business interruptions, lost revenue and other fees related to the dispute.

Adding all asserters' risks together defines YouCo's total patent risk – here \$350 million.

Once the scale of each assertion has been determined, YouCo must next identify the timeframe of a potential assertion. This could coincide with a contract renewal, predictions of when YouCo's revenue might pose a threat to a competitor or the past history of assertion against other companies. In this model, the year is the specific number of years from today in which the assertion is predicted (eg, seven in 2015 implies an assertion in 2022). These estimates are uniquely tailored to each company in the threat list.

Figure 4. Sample risk assessment and mitigation analysis

Company	Customer A	Competitor B	Supplier C	Asserter D	Totals
Risk assessment					
Scale of dispute – at risk amount (\$ million)	\$50.00	\$100.00	\$150.00	\$50.00	\$350.00
Counter-assertion timeframe (years)	7	7	5	5	
Chance of assertion (%)	2%	2%	10%	20%	
Expected value of dispute at time of dispute (\$ million; nominal)	\$1.00	\$2.00	\$15.00	\$10.00	\$28.00
Annualised cost of expected risk (\$ million; 10% cost of capital)	\$0.11	\$0.21	\$2.45	\$1.65	\$4.41/year
Risk mitigation					
As a company, what would you be willing to spend to sustainably reduce or eliminate the expected risk? Typical values: 35%-100% [65% used here] (\$ million)	\$0.66	\$1.32	\$9.90	\$6.50	\$18.48
If we model paying for the risk in annual payments with a 10% cost capital, how much should you be willing to spend each year on a per company basis? (\$ million)	\$0.07	\$0.14	\$1.62	\$1.08	\$2.91/year
Potential proposed investment assuming sufficient overlapping business units and focused purchases and development (\$ million)					With overlap: \$1.62/year?

YouCo should then consider the probability that the assertion occurs in that year. These are generally low numbers, especially in cases where companies have good business relationships. So, in the event that YouCo has a good relationship with Customer A, the probability of an assertion will be low. Additionally, if YouCo and Competitor B are both focusing their resources on market competition instead of litigation, the probability of an assertion from Competitor B will also be low. Other reasons for low probabilities include market risks such as spin-off businesses or radical shifts in market share. However, in this example, Supplier C has been making noises about moving upmarket and has historically been aggressive in its use of its patent portfolio, so the probability of a dispute is higher. Also, where a company has a history of using patent assertion as a business strategy, the probability of assertion will be higher, as in the case of Asserter D.

YouCo can then use the risk of assertion to calculate the expected value at the time of the future dispute (shown in Figure 4 in nominal dollars). As a reference point, it is useful to consider what it would cost YouCo to pay the asserter based on the expected value in equal payments – taking into account the cost of capital. Thus, the value of equal payments (as if the risk were a mortgage) can be computed to estimate the annual cost of the risk.

In accounting, the cost of capital is the minimum return that investors expect for providing capital to the company. So, when a company is entering a new business or investing in a new (or existing) project, the cost of capital is the amount that the project is expected to make to be a worthwhile investment. Companies decide whether to invest in a project based on whether the costs of the project, adjusted for the cost of capital, will be less than or greater than the future expected value. Using the cost of capital ensures that our investment in risk mitigation represents a good return on investment.

We use the cost of capital throughout this article as shorthand. However, in many businesses, a weighted average cost of capital is padded to calculate a discount rate or the required rate of return that your company uses for its business planning.

The specific cost of capital is set differently by every company. Ask your chief financial officer what cost of capital or internal rate of return he or she uses in business models. While a new start-up may have a 33% cost of capital, most high-tech companies tend to set their cost of capital

somewhere between 9% and 15%. In the case of YouCo, this number is 10%.

Returning to the example, YouCo adds its estimates together, resulting in \$4.41 million a year to cover the expected cost of payments to all asserters. Obviously, the actual payments to these asserters can vary substantially, but the expected value of the annual payments will help to define YouCo's investment in its corporate patent risk reduction strategy.

In theory, a strategic patent investment of up to \$4.41 million per year will be equivalent to the anticipated cost of an unchallenged assertion. So, \$4.41 million is the break-even point for a portfolio which effectively mitigates 100% of the modelled risk and represents a theoretical maximum spend for reducing YouCo's patent risks while still getting an acceptable return on investment.

This maximum applies to the annualised spend that YouCo should consider investing for risk mitigation only. There may be other advantages of a patent portfolio, such as the ability to gain licensing revenue or deter competitors from directly copying your technology, which are not included in this number.

It is unlikely that YouCo would actually be willing or need to spend this entire \$4.41 million. The next two steps are important for setting the right budget for patent risk mitigation investment:

- deciding what percentage of risk to mitigate (which is discussed after the next section); and
- identifying technology areas shared by the potential asserters, so that a patent investment mitigates risk across multiple companies simultaneously.

A summary of the first step and a sample result for the second is shown at the bottom of Figure 4.

Finding technology overlap

A winning counter-assertion portfolio has patents that act as credible threats to multiple potential asserters' revenues. The development or purchase of these patents reduces the necessary investment for risk mitigation because they double count. In other words, they reduce risk for multiple asserters, but they only have to be developed once. As a result, finding technology areas or market segments where multiple potential asserters derive revenue will allow any company to amplify the value of its patent investment.

Identifying the right technology areas requires an analysis of each potential

Litigation patents versus licensing patents

When developing or purchasing patents, there are two key ways to consider a patent: its litigation potential and its licensing potential. While ideally a patent will be strong in both areas, this is not always the case.

Some patents have a very limited scope, are written very clearly and have a written description that makes it easy to prove infringement that is defensible in court. However, perhaps that infringement applies only to a few companies and will not be widely applicable.

For other patents, it may be more difficult to prove infringement in court. The claims could be extremely technically complex and might be more difficult to describe to a jury. However, the technology is pervasive enough to offer good licensing potential.

Similarly, specific arguments for invalidity or non-infringement that are commonly made during litigation may readily be dismissed during a licensing discussion as simply too speculative and of negative negotiating value. In other words, if you raise that point, you may negatively affect your credibility and your negotiating position, even though there is a small chance that you could win on the point in court.

The end result is that licensing potential and litigation potential are two different ways of analysing a patent's value. While some patents are valuable on both axes, it can be enough to have value on only one or the other. Recognising that not all patents in a counter-assertion portfolio are for litigation keeps your focus on the winning scenario.

Figure 5. Identify technology overlaps for the analysis in Figure 4 (all numbers as annual revenue in \$ million)

Company	Middleware	Personal computers	Cloud infrastructure	Database software	Wireless network products	Exposed revenue of overlapping technical area
Customer A	-	-	-	\$1,200	\$8,500	\$1,200
Customer B	\$700	\$22,000	\$3,000		-	\$3,000
Customer C	\$2,000		\$2,500	\$5,000	-	\$7,500
Customer D	\$15,000		-	\$1,500	-	\$1,500
Total	\$17,700	\$22,000	\$7,800	\$14,200	\$8,500	\$13,200
Picked focus technical area	N	N	Y	Y	N	

asserter's key revenue sources. This analysis should identify which products and technology areas are strong revenue sources along with their growth (or negative growth) rates. It should also include the geographic regions from which the revenues are coming. Because patents are country specific, knowing whether a potential asserter's critical technology has a large presence in the United States, as opposed to Europe or specific Asian countries, can help a company to understand which geographic regions are strongest for its patent portfolio.

It can seem daunting to get the financial information for each potential asserter. However, many potential asserters are public companies that provide this information to their shareholders and the regulatory authorities. Their filings, shareholder reports and investor relations decks are all readily available and contain most of this information. Additionally, market analyst reports on the company and third-party product market analysis can help.

Each market segment's growth (or decline) over time is important to identify the most strategic areas of a potential asserter's business. For example, a product with declining revenues may not even be part of an asserter's portfolio five years from now or may be a fraction of its current size. Having a counter-assertion against a declining business provides poor negotiating leverage. However, a smaller market segment that has been identified

as a strategic growth area for the company or technology in an area where an entire industry is expanding is likely to provide better negotiating leverage.

As a side note, it is impossible to predict a market's growth with complete accuracy. We are looking towards the future and making predictions, and it is virtually impossible to get even close to 100% certainty about future business earnings. In this process, you do not need complete accuracy to decide where to focus a patent investment. If a market segment's estimated value is \$2 billion versus actual value of \$2.5 billion, the analysis will be close enough to know whether patents in that area will remain important to your potential asserter.

Once you have identified key market segments, you can start to identify areas of overlap. Figure 5 shows an example.

Here, YouCo has identified five technology areas where some combination of Customer A, Competitor B, Supplier C and Asserter D do business, and has identified their revenues from each segment. By adding up their revenue, YouCo can find the total potential impact of each given technology area and the total exposed revenue for each potential asserter.

Using this model, YouCo can prioritise its patent investment. Immediately, YouCo can place a very low priority on patents that would cover wireless network products, as only Customer A (which has a low risk and low cost of assertion) is in this business. While the higher revenue exposure in middleware and personal computers might seem like good areas for YouCo to focus its patent investment, the predicted growth/decline in those market areas shows these to be stagnating or declining markets, and therefore unappealing. In addition, personal computers affects only one of the four potential asserters. Importantly, we have

“ A winning counter-assertion portfolio has patents that act as credible threats to multiple potential asserters' revenues ”

now found reasons to reduce patent portfolio investments in what could otherwise appear to be a valuable market area.

However, an investment in database software patents offers a strong potential impact across three out of four of YouCo's potential asserters. This investment can be complemented with an investment in cloud infrastructure patents for coverage across all four asserters. Both market segments are growing and represent good patent investments.

Importantly, YouCo does not have to have counter-assertion assets against all of the revenue generated by all of the companies. It only needs to have counter-assertion assets that cover enough revenue in its potential asserters' strategic market segments to present a credible counter-threat.

Risk mitigation – identifying the holes

Now that we have defined target technology areas, it is time to look at methods to mitigate risk at the lowest cost possible.

First, YouCo should look at a variety of factors to determine how much of this risk could be mitigated through counter-assertion patents. This could include the strength of YouCo's patent portfolio today, YouCo's financial health, whether YouCo is already involved in other litigation that could affect these asserters and general trends in its industry and in the patent landscape. Looking at YouCo's patent portfolio and matching it against the areas needed to effectively deal with the patent risks identifies the holes in YouCo's portfolio.

In Figure 4, we determined that YouCo's total annual cost of its risk was \$4.41 million. However, it is unlikely that YouCo will want to spend that much to mitigate its patent risk. YouCo will instead make the business decision not to eliminate all of its patent risks through its patent portfolio by setting a break-even point (eg, some of the risk may be mitigated through patent litigation defence, *inter partes* reviews and oppositions). As such, YouCo can scale the potential annual spend down by the amount of coverage it wants.

Generally, the counter-assertion patent portfolio investment should range from 35% to 100% of the maximum cost, using other methods (eg, IP rights, oppositions, litigation and lobbying) to further reduce the remaining risk. In our example, YouCo has chosen to scale the break-even point to 66% risk mitigation. This brings its upper bound for the cost of mitigation to \$2.91 million per year and risk mitigated above 66% is simply a better return on investment.

However, we can see from our analysis in Figure 4 that the highest single assertion risk comes from Supplier C. If YouCo owns enough counter-assertion patents in the technology overlap areas of cloud infrastructure and database software to counter Supplier C, these patents may also counter the risk from the other three potential asserters, without requiring additional investment.

By looking at our model in Figure 4, we can see that 66% of the expected payments to Supplier C were \$1.62 million per year, or approximately one-third of YouCo's maximum investment of \$4.1 million. By selecting the right counter-assertion patents, this could represent YouCo's total annual expense necessary to effectively mitigate its patent risk.

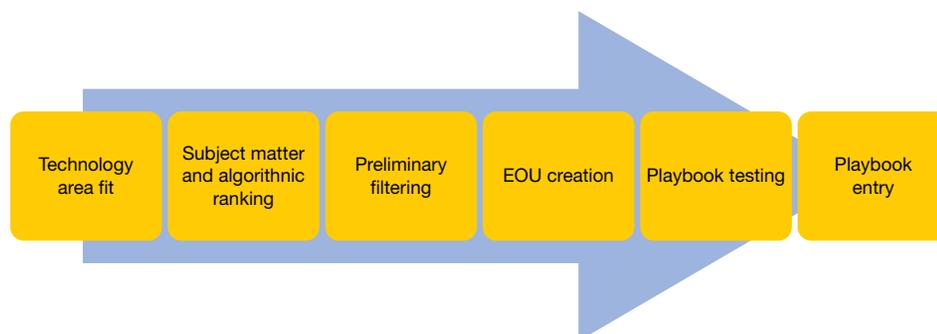
Turning to Figure 6, it could take up to 25 counter-assertion patents for YouCo to counter all of its potential patent asserters. However, buying or developing that many patents would be an over-investment. By focusing on overlapping technology areas, YouCo need have only 10 counter-assertion patents in order to sufficiently affect all of the revenues of all of the asserters.

Let us now look at whether YouCo could purchase these patents over five years. In today's market, the answer is most likely yes. With today's pricing, a typical patent purchase of between three and eight assets including one charted patent family costs between \$500,000 and \$1 million. Ten such packages with 10 charted patents would potentially deliver between 30 and 80 assets. If we use an average of \$750,000 per package, YouCo's total cost comes to \$7.5 million. Since \$1.62 million per year for five years would give YouCo \$8.5 million with which to work, it is reasonable that it could

Figure 6. The value of an overlapping playbook

Company	Customer A	Customer B	Supplier C	Asserter D	Total
Scale of dispute – at risk amount (\$ million)	\$50.00	\$100.00	\$150	\$50	\$300
Counter-assertion timeframe (years)	7	7	5	5	
Chance of assertion (%)	2%	2%	10%	20%	
Size of asserter's portfolio	Small	Medium	Large	Very Large	
Number of counter-assertion patents needed without overlaps	3	7	10	5	25
Number of counter-assertion patents needed with overlaps					10

Figure 7. Qualification funnel for deciding which patents to include in a playbook



buy patents to mitigate its risk within its budget. (For more information on the patent buying market, see “The brokered patent market in 2014”, *IAM* 69.)

Can YouCo also develop patents to fill these holes? It is possible. However, these patents will have later priority dates, and only about between 3% and 5% of internally developed patents will have strong enough evidence of use cases (EOUs) to stand up in a counter-assertion position. A mixture of bought and developed patents is likely the best choice for YouCo. For companies with larger current portfolios or a longer history of patent filings, the answer is likely different.

Importantly, perfect overlap between the technologies that patents cover and the focus of companies may be elusive. A patent on database software may apply only to two of the three companies in that market. Thus, it is important to test your portfolio. The following section describes how to test the efficacy of your current portfolio for counter-assertion.

Analysing your counter-assertion potential

To understand your counter-assertion potential, it helps to create a playbook for each potential assertor. In this example, YouCo would have playbooks for Customer A, Competitor B, Supplier C and Asserter D.

These playbooks contain the analysis of each assertor’s business interests and revenues (shown above), and the specific patents inside YouCo’s patent portfolio which could be used for counter-assertion.

Figure 7 shows the typical qualification process for deciding which parts of your company’s existing portfolio will make it into a given playbook. The same approach applies to a patent family you are still developing or are considering purchasing to determine whether it will make it into the playbook. (For a purchase qualification methodology, again see “The brokered patent market in 2014” in *IAM* 69).

The first step is to look at the technology area fit, using the method described above for finding strategic technology areas for each potential assertor. The pool of potential assets includes the company’s current patent portfolio and any assets on the open market or quasi-open market. The result is a large pool of potential patents for use in counter-assertion. Each step in the process drastically reduces the pool of assets.

The next step is to look at the subject matter of each patent and use an algorithmic ranking of the potential usefulness of that patent. This could be a mix of techniques. Your algorithm might use metrics, such as looking at forward citations to assess a relative potential of the patent compared to others in the

What is involved in high-tech patent licensing?

Over 250,000 patents cover the internal technology and applications of an average smartphone. If a new company wanted to enter this market, it would be impossible to clear its smartphone from patent infringement or to predict which patents might be asserted against it. This dynamic plays out in every high-tech market today.

This creates an interesting dynamic in high-tech patent assertion and licensing. In contrast to biotech and pharma, for example, in high-tech it is very rare for any corporate assertor to use its patents to exclude someone from the market. More likely, an assertor will be looking for licensing fees, freedom to operate or the ability to slow down someone else’s business. A

successful high-tech company expects to be asked for patent licensing fees.

This dynamic can greatly simplify the model for assessing the cost of assertion risk in the high-tech market, because it leads to the following guidelines:

- Most corporate assertors will ask for a licence fee that is less than the threshold at which the potential licensee’s reaction is, “It is cheaper for me to pay litigators than to pay your licence fee.” This upper number is generally between \$50 million and \$250 million (although there are exceptions to this).
- Second, corporate assertors will want to ask only for a reasonable amount of your revenue. If you are making \$2

billion a year, an assertor will generally ask for less than \$50 million. Asking for a provably ridiculous amount simply causes the assertor to be dismissed as not credible. Many times, they will ask for much less.

- Often, corporate assertors will prefer one-off licensing payments to ongoing royalties.

Ultimately, this means that there is some risk number that you can calculate within a reasonable range (a normal distribution of asks or value of a threat) on a per-assertor basis. Each member of the high-tech ecosystem will have a different risk amount, but the amounts will all be bounded.

portfolio. Or it could also include a quick review (usually five minutes or less) by a person who has domain expertise. If you do not have a starting place for algorithmic ranking, a model that we use is available on our website (www.richardsonoliver.com/).

Next comes a preliminary filtering to determine which patents are worth building an EOU against the potentialasserter. This stage may take approximately one hour per patent.

At this point, for any patents passing the test, it is worth trying to build the EOU. It will take between eight and 30 hours to build the proof that this specific patent is used by the corporate asserter for a specific product and is worthy of entry in the playbook.

The next step is to stress test the patent and its EOU. We recommend role playing the counter-assertion meeting with your patent team to help refine the positioning of the counter-assertion patents. This will help the company to strengthen the EOU by pre-identifying potential weak spots. Stress testing will help you to develop answers to any flaws or questions that the other side would likely raise.

Finally, after this qualification process is complete, the patent can be entered into a given playbook. The complete set of playbooks represents the primary counter-assertion potential of your patent portfolio (see “The counter-assertion playbook” sidebar).

You now have the basis for determining a return on your patent portfolio investment. If the playbooks will mitigate the selected amount of risk for the risks that you have identified, your return on investment is the cost of capital you selected. If you need to invest more in playbook development, your return will be less than your cost of capital. In this example, the cost of capital is 10%, the amount of risk selected for mitigation was 66% and a patent buying programme has been identified as being able to sufficiently reduce your risks using \$1.62 million per year. So in answer to the three questions originally posed by your CEO:

- We should invest \$1.62 million in patents for counter-assertion this year.
- We should get patents in cloud infrastructure and database software.
- The patent development programme will use a 10% rate of return to address 66% of a \$350 million patent risk.

There are some important thoughts about presenting models like this. Most importantly, the model attempts to select the most important business factors for

The counter-assertion playbook

Creating playbooks offers companies a method for knowing when there are enough patents in a portfolio and where to strengthen coverage. If, for example, you have nothing in the playbook for a particular potential asserter, you can expect to pay it licensing fees or have protracted litigation. In contrast, a playbook with only one identified patent for that asserter is expected to cause that corporate asserter to reduce its expectations of fees from you. However, if you have a full-blown playbook for the asserter, you are likely to have a strong negotiating position for no fees or fees being paid to you. Importantly, the goal is not to attain 100% coverage of the asserter’s revenue, but rather to affect a substantial portion of the corporate asserter’s revenue with the patents in your playbook.

If your goal is to steer your licence rate to zero, then you want to affect a comparable amount of revenue to your own. For example, if you have \$5 billion of total revenue and are counter-asserting against a much larger asserter (eg, \$40 billion per year), then having around \$5 billion of affected revenue from playbook-entered patents is a good goal. The playbook also demonstrates why the total number of patents in your corporate portfolio is less important than their quality and impact. We find that a typical well-tested playbook for a potential asserter will have between three

and 10 patents (and the corresponding family members) affecting a comparable amount of revenue to your own company’s revenues. Overall portfolio size still comes into play, but the value drivers for the negotiation are primarily in the playbook.

However, there is not a linear correspondence between the number of patents you have in a playbook and its total counter-assertion value. The first few patents (going from nothing to something) have the biggest impact on your licensing discussion.

Once you have a playbook in place, the next step is to stress test it. Just as you tested each patent before it was included in the playbook, it makes sense to go through the same process to look for strengths and weaknesses in the playbook as a whole.

Then, set up a regular review cycle. The high-tech ecosystem is constantly changing, as new suppliers and known corporate asserters change their business models regularly as markets evolve and key technologies are bought and sold. Regular reviews of the playbook contents should take place every 12 to 24 months, to make sure that coverage remains strong and that there are playbooks in place for the relevant threats. For simplicity, we did not include an estimate of how long a patent will stay in the playbook, but models should take this into account.

the particular strategy. Some models will be more complex; others can be simpler. Second, the model provides a framework for discussion about the patent strategy. Without the model, discussions can career all over the landscape without anchoring on the most important elements of your patent strategy. Third, the model allows you to adjust your strategy over time, but still keep a basic framework for future years. Finally, models such as this are commonly used to determine whether a particular project or business strategy should be pursued.

Each interest captured

A counter-assertion ready patent portfolio is an important asset for your company. The playbook model mitigates patent risks, provides a financial foundation for your patent investments and gives you a testable patent strategy.

By using this risk analysis model, you can determine a patent strategy that will deliver a clear return on investment,

Action plan

A

Rapidly growing companies need a defined business plan to guide their patent acquisitions. Follow these steps to create a counter assertion strategy that maximises ROI:

- Identify patent threats. When mapping your patent threats, remember that your broad ecosystem includes not just competitors, but suppliers, customers and partners, in addition to known corporate asserters.
- Quantify your risk. Determining the annual cost of risk will help you to set a spending target which does not over or underreact to threats.
- Make your investment go further.

Identify technology areas or market segments that are key revenue sources for multiple potential asserters and prioritise these areas of overlap.

- Create a playbook. Analyse each potential asserter's revenue and business interests to pinpoint specific patents that have strong potential for counter-assertion. In addition to winning patent litigation, consider the value of litigation deterrence.
- Practise, practise, practise. Roleplay negotiations with your most likely potential opponents to identify weak spots in your playbook and prepare to address them convincingly.

identify which patents to develop or purchase and confirm whether you have strong counter-assertion coverage. This process requires forecasting, market

analysis and some diligent playbook maintenance, but allows for an efficient use of the scarce engineering and financial resources within your company

In conclusion, this model provides a framework for discussion with other members of the corporate team. It explains not only why you get patents, but which patents are more likely to be valuable, which companies pose the greatest risks and ultimately how much risk you are willing to mitigate. The model is not perfect, but it allows you to structure conversations with executives, legal, finance, engineering – each group having different interests, but each interest captured in the model. **iam**

Kent Richardson and Erik Oliver are partners in the Richardson Oliver Law Group, Los Altos, California, United States

The authors gratefully acknowledge the assistance of **Michael Costa** and **Susan Mack** in preparing this article

www.e-mergeglobal.com

Enhance Your Patent Power

Patent and Technology Research Company



- Patent Search Services
- White Space Analysis
- Portfolio Analysis
- Portfolio Management
- Landscaping Studies
- Technology/Innovation Research
- Claim Charting/Infringement Analysis
- Patent Licensing Support Services
- Patent Due Diligence
- Patent Drafting

Reach us

USA: 1-888-247-1618
India: +91-44-2231 0321
contact@e-mergeglobal.com