

IP risk assessments - a pragmatic approach to avoiding problems

An IP risk assessment limits the number of IP-related surprises that a corporation faces. It lowers the risk in acquisitions and allows management to price products to incorporate the risk that is assumed

By **Richard Baker**

In Spring 2008 Joe Rideout, president of Rideout Factory Computers, was preparing to join his vice president of sales on a conference call with his largest customer, Haverhill Mills. He was expecting a friendly call to refresh the relationship and encourage new orders. Haverhill Mills had been buying Rideout's personal computers for almost two decades. They appreciated the quick delivery that the company provided from its large Massachusetts-based warehouse.

Rideout had started in Lawrence, Massachusetts, building the first factory-hardened computers with local labour. As components from the Far East became cheaper, Joe relocated his manufacturing, first to Taiwan and later to a small town outside Beijing. However, Joe liked having his local employees inspect every product that his company shipped and wanted to ensure that the products met his quality standards and specifications. Every product was shipped to Lawrence for inspection and warehousing before being shipped to customers. Haverhill Mills specified the first computer that Rideout shipped and the same specification remained in the system, with new features added as necessary. When Rideout moved to web-based marketing, Joe gave the heavily amended copy of the original specification to the web designer to build into the website.

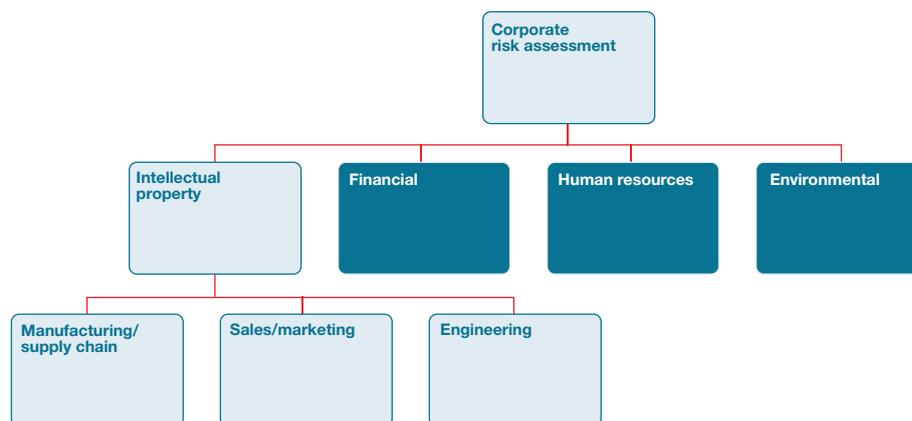
Just before the meeting, Joe's secretary called. A process server had left a civil complaint in the lobby and the receptionist was bringing it to Joe's office. Joe's mood quickly turned sour as he read the complaint: patent infringement, wilful behaviour, request for an injunction. Hoping it was a mistake, he looked again at the front page to see whether Rideout was really the defendant. His heart sank even further: not only was Rideout listed as a defendant, but so was Haverhill Mills.

The next day, Joe called in his lawyer for an explanation, but the lawyer had more questions than answers. The suit accused Haverhill Mills and Rideout of infringing a patent on V.27ter modem technologies. The lawyer wanted to know what V.27ter was and how the two companies used the technology. He wanted to know how many products included the feature and how many products were made, used or sold in the United States. Joe had no answers – he had never heard of V.27ter.

After several weeks of research, Joe began to realise what had happened. The Haverhill Mills specification for the computers had been amended in 1988 to require a modem port that ran at 4,800 baud, using the V.27ter standard. Three months later, the specification had been changed to 9,600 baud using V.32. In the mid-1990s Haverhill Mills amended the specification again to specify Ethernet and everyone forgot about the modem requirements. However, when the website was created, the designer diligently pulled forward all of the requirements and specifications from the Haverhill Mills document, including all of the amendments. The designer even added a case study page on Haverhill Mills, featuring a glowing recommendation.

Joe's lawyer explained that the webpage would look bad to a jury. The plaintiff would

Figure 1. Mapping an IP risk assessment



be looking for a royalty on every product that Rideout made because they all flowed through the Lawrence warehouse. The lawyer advised Joe to set aside a huge reserve to resolve the conflict and suggested conducting an IP risk assessment to avoid future problems.

IP risk assessments

An IP risk assessment is an analysis of a corporation's practices, products and marketing materials that seeks to identify risk areas and suggest modifications to minimise risks within the company. It focuses on minimising a company's IP damages profiles and allows management to make intelligent decisions on risk areas. Three key areas are reviewed:

- The flow of products through the supply chain and indemnification clauses in purchase and sales contracts require analysis.
- Web pages and other marketing materials must be studied for accuracy.
- Product feature sets must be analysed for obsolete features.

An IP risk assessment is not a patent clearance or a legal review of contracts, products or patents. Rather, it is a business review of risks associated with IP matters.

Companies typically perform risk analyses of the corporate financial, environmental and human resources risks associated with their business; for US listed stock, this is a standard section in the Securities and Exchange Commission's Forms 10K and 10Q.

The analysis required in a risk assessment involves thinking like a patent plaintiff. How does a plaintiff identify the party to sue for patent infringement? What

thinking is involved in determining whether to sue a customer, a retailer, a distributor or a manufacturer? What damages does a plaintiff think are available? The company must then determine how to influence a plaintiff's actions to minimise the company's exposure and maximise its benefit.

US patent law allows a plaintiff to obtain an injunction or a royalty from a party that makes, uses, sells or offers to sell an item covered by a valid US patent in the United States. Other countries have similar legislation covering their own patents, but patent laws differ and not every country has a patent system. The United States is considered to have one of the world's strongest patent systems, with patent owners often being compensated more than in other countries. US law allows a plaintiff to take action against one or more parties involved in an infringement; damages for lost profits and treble damages are granted in some cases. An IP risk assessment considers all of these factors in determining a roadmap to minimise a company's damages.

Given that all companies work in a commercial environment, the goal of the risk assessment may simply be to create a competitive advantage in how IP risk is managed. It is similar to the story of the bear and the two hikers: rather than outrunning the bear, a hiker need only outrun his fellow hiker to survive. Where the world of Intellectual property intersects with the business world, a company need only manage its IP matters better than its competitors to build a significant commercial advantage. For example, if a company can make it easier for a plaintiff to sue a competitor, the company avoids litigation and settlement costs and can

Recognising risk

invest its money elsewhere.

A regular IP risk assessment is an important part of responsible management. In addition, such assessments may be critical at times of important change, such as a merger, an acquisition or the start of a key initiative. For example, launching a major new product line or building a new factory may call for an evaluation of IP risk. But which areas are identified in an IP risk assessment?

Supply chain

The supply chain is the lifeblood of a product-based company. It maps the path of the product from components through sub-assembly, assembly, distribution and retail, until the product reaches the consumer. These stages are often handled by different companies, located in different countries, with transportation and warehousing between each stage. Decisions on the design of a supply chain have ramifications for the IP risks assumed in that design.

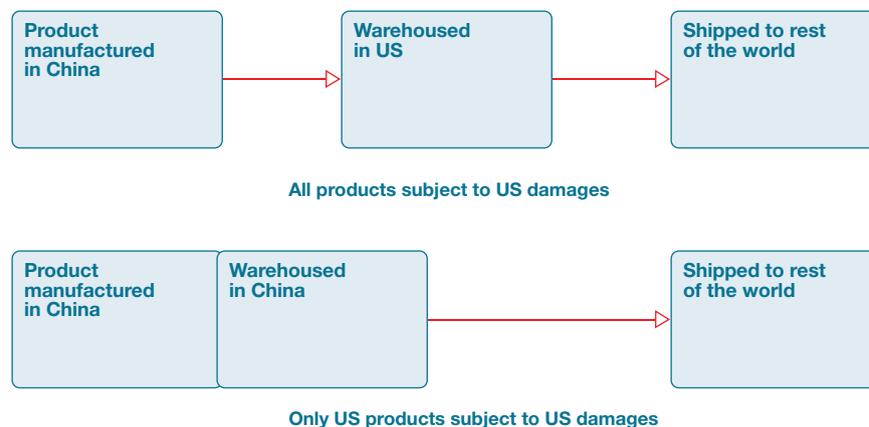
Were IP matters considered in the design of your supply chain? Consider Rideout Factory Computers. Its supply chain for all products involved a central warehouse in the United States. As a result, even foreign sales were exposed to royalty and injunction risks in patent litigation. Haverhill Mills looked to Rideout to indemnify it from the damages related to Rideout products. Did Joe ever consider the costs of the indemnification clause in the sales agreement and whether he might have to indemnify his largest customer for business reasons, even if not contractually required to do so?

Another option that Joe might have considered would have been to have his suppliers ship the assembled products directly to his customers, lowering his IP risks. Although such an approach may eliminate damages on all foreign sales, it may reduce quality and increase delivery times, so business cost considerations may override the increased risk. The point of conducting an IP risk assessment of a supply chain is to identify risks and allow management to make an informed trade-off between quality, delivery, costs, business risks and IP risks.

Supply chain design

An IP risk assessment analyses the product supply chain from start to finish, determining product flow and the entities and locations where each performance stage of the chain. Suggestions are made for moving stages out of high-risk locations. For instance, the Texas city of Tyler in the

Figure 2. Changing geographical locations in the supply chain may mitigate IP risk



Jurisdiction	Cost	Plaintiff win rate	Most likely outcome
United States - Eastern District of Texas	US\$3.5 million	80%	US\$31.5 million
China - Hangzhou Province	US\$300,000	34%	Modest amount
France - Paris	US\$500,000	54%	US\$1.53 million
Germany - Dusseldorf	US\$1.1 million	28%	US\$4.8 million
England - London	US\$1 million	6%	(US\$1 million)

Source: Elmer, US and global patent litigation forum shopping, presentation to Colorado Bar Association, 27th August 2009

United States is considered a high-risk area with a fast, plaintiff-friendly court that is willing to issue injunctions, whereas Italy has a reputation for a glacially slow court system that will take longer than the life of a patent to issue a decision. Italy would be considered a lower IP risk area – as would London, where law firm Finnegan's Global IP Project puts the patentee win rate at 6%. So an IP risk assessment might recommend warehousing in London or Italy, rather than in the United States, in order to lower IP risk, on the understanding that other business factors, such as shipping costs and political stability, may override the IP recommendation.

The United States may wish to consider legislation to create free trade zones that would protect the warehousing of products in the United States from damages and injunctive exposure. US law already allows for the through-shipment of products on ships or aircraft (35 USC 272), and an extension of this concept to foreign manufactured products that are in the United States temporarily, for the sole

Figure 3. Example of a high-technology industry indemnification chain

	Chip manufacturer	Original design manufacturer (ODM)	Branding corporation	Distributor	Customer
Company size	Large	Typically small	Large	Typically small	Varies
Unit cost	Very low	Low to medium	Medium	Higher	Highest
Ability to honour indemnification	High	Low	High	Low	Not applicable
Behaviour	Sometimes offers indemnification	Indemnifies when required, but does not always honour this term	Often indemnifies customers and distributors; negotiates indemnification from ODMs	Expects indemnification	Expects indemnification

purpose of being warehoused for foreign sales, might make good public policy sense, as it would allow for additional employment in international warehousing.

In addition to warehousing, a similar analysis is required on the location of manufacturing facilities. Rather than locating a new factory in China, where IP laws are emerging as a strong force, it may make more sense to build a factory in Vietnam, where the IP regime is less mature. Again, IP risk is only one factor in the overall decision.

In the case of a known IP risk, such as the combination of several elements, the manufacturing chain can be designed around that risk. If a company is sued for patent infringement in the United States for the combination of a universal serial bus (USB) port on a mobile phone, the product can continue to be manufactured in the United States without the USB port, then shipped overseas for the port to be added. Products shipped back to the United States would be subject to an injunction, but all foreign sales would still be allowed. This approach would limit the impact of an infringement action.

Supply chain indemnification

Within the supply chain, each company has a set of agreements determining how and when the products, money and responsibility flow. Many such agreements contain boilerplate clauses on IP matters, added as an afterthought, and such clauses are often misunderstood or ignored by the company.

However, intellectual property is an important factor in designing a supply chain and can be a key competitive advantage if properly understood and managed. The issue of which party takes responsibility for IP risk is a key factor in contractual negotiations and should be a factor in the pricing of a supply contract. A trade-off that either party can make is to purchase insurance to cover infringement risk and

add the insurance cost to the product cost. One key issue with indemnification is the ability and willingness of the other party to abide by the agreement.

An IP risk assessment analyses the indemnification agreements, both inbound and outbound. This analysis looks at the risk of infringement, the ability of the other party to pay and the options to insure against risk for both suppliers and customers. In addition, the assessment searches for hidden indemnifications, such as cases where large suppliers or customers have the negotiating power to insist on indemnification, even where there are no contractual requirements. Overall, the outcome of the assessment may confirm that profit is generated from the assumption of IP risk, and that the risk is acceptable as originally determined.

Warranties

The final area of the supply chain analysis that is covered by a comprehensive IP risk assessment is a study of the IP warranties in sales and purchasing contracts. Clauses that warrant a product for merchantability cover the ability to sell the product free of IP issues. Some contracts contain explicit warranties that the products are free from such issues. These warranties are itemised in a risk assessment and evaluated for the risk of non-compliance. In addition, the assessment suggests ways to mitigate the risks in these warranty clauses, given commercial considerations.

Marketing materials

In addition to a review of supply chain issues, a robust IP risk assessment includes a thorough review of marketing and sales material. An experienced litigator once said that the engineering documents in discovery may be safe, as they contain the facts, but to watch out for the marketing materials. In some cases companies have settled, despite the fact that they clearly did

Recognising risk

not infringe, because marketing materials have come to light which overstated the capabilities of a product in a way that implied infringement.

For a plaintiff, marketing materials are typically easy to obtain and easy to map to patent claims. Almost every marketing document is now available on the internet. A Google search for keywords found in the patent is a simple way to find defendants for a patent case.

In Joe's case, all the plaintiff had to do was to search for V.27ter – a list of products that included the feature appeared in the results. This may be sufficient for a plaintiff when deciding which party to sue for patent infringement. When asked for the basis of the suit, the plaintiff will use the defendant's own website against it. This is why an IP risk assessment of marketing materials is so critical.

Another common website mistake is to include customer references or testimonials. Plaintiffs can use such documents to attack a business through its customers; the documents may also provide the names of customers to subpoena for information that will be useful in determining royalty rates. Either eventuality may disrupt the commercial relationship between a company and its customers. Similarly, supplier information on websites can provide plaintiffs with information on the design of a product.

Marvell Semiconductor takes a different approach to the marketing of its products. Rather than placing full details of its chips and customers on the website, Marvell includes only a general description of its chips in its public marketing materials. The details of its products cannot be obtained without signing a non-disclosure agreement. This includes a term that prohibits the use of the material under the agreement in litigation against Marvell. By analysing the IP impact of its marketing material and limiting a potential plaintiff's access to information, Marvell has avoided a number of IP disputes of the kind that have befallen its competitors. This puts Marvell at a competitive advantage.

In order to achieve a similar result, a corporation should assess its IP risks. This assessment must focus on the website to ensure a balance between the sales and marketing materials required to entice customers to purchase the product and the IP risk of disclosing such information. Websites that focus solely on selling are at risk of IP disasters. Ensuring the accuracy of public information is critical. The assessment should also include brochures,

Figure 4. Example of a feature chart for a laptop

Feature	Exaggerated	Needed	Limited use	Obsolete
WiFi 802.11	✓ Does not do 802.11a part of standard	✓		
Bluetooth			✓	
Modem				✓
USB		✓		

catalogues and training materials to determine the balance of information and the level of non-disclosure agreement protection required for the product. In addition, web archives must be analysed and tactics considered for removing old information.

Product features

The final key aspect of an IP risk assessment is the review of the product's features. This examines a company's product set to identify obsolete or rarely used features that could create a needless IP risk for the company. The assessment will recommend approaches to reducing risk. For instance, rarely used features may be packaged as separate options to limit the number of units that infringe (reducing the royalty base) and to limit the amount of damages per unit (reducing the royalty rate).

For example, adding wireless access to a machine tool product line will expose all tools to an infringement charge under the wireless patents that are being asserted in the industry. If a machine tool costs US\$1 million and the company sells 1,000 tools a year, the plaintiffs might argue that the products are sold because of their wireless function, and that they are entitled to a percentage of the US\$1 million selling price on each product. At a 1% royalty rate, this is \$10 million a year. If a wireless adaptor is sold separately for US\$100 each and only 100 customers buy the attachment, the 5% royalty leads to total damages of US\$50,000. A simple change in product packaging results in a huge reduction in IP exposure.

Rideout Factory Computers offers an example of failure to consider the features of a product. Rideout had included modem technology in the 1980s, but forgot that modems were included in every product, even though few (if any) customers used modems in 2008. It is unlikely that the inclusion of modems had added a single sale to Rideout's figures in the preceding 10 years, but because this feature was maintained in the product line, a royalty

Action plan



Regularly assess the organisation's IP risk. Assess IP risks when embarking on major projects, such as:

- Mergers.
- Acquisitions.
- Major investments.
- Major initiatives.

In an IP risk assessment, evaluate:

- Supply chain structure.
- Product features.
- Indemnifications.
- Warranties.
- Marketing collateral.

became payable for every computer that Rideout sold.

An IP risk assessment identifies obsolete and rarely used features and recommends options for repackaging or elimination. A good assessment also identifies technology areas that attract a significant number of patent assertions, so that the company's management is informed of potential future risks.

IP risk assessments

If Joe Rideout had conducted an IP assessment, the day he received the patent infringement complaint would have been very different. If he received a complaint, Haverhill Mills would not have been named, as Rideout would have protected its customers by removing their names from its website. Damages would have been limited to products used in the United States, because the supply chain would have been redesigned to prevent foreign-manufactured products for foreign customers from reaching the United States. Joe would have been reassured by the marketing

department that modems were split out as an option in 2000 and that only 15 optional modem cards had been sold in the past six years, so the total cost of damages would have been minimal. Rideout would have insisted on indemnification from its suppliers, meaning that the supplier would pay for the litigation defence. And Joe would have had a friendly discussion with Haverhill Mills about new products and new orders, instead of who would pay for the litigation. **iam**

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