Finding and Tracing an Invention's Footprint

A Comprehensive Conceptual Framework for Evaluating the Value of an Invention

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"To be admissible, expert testimony opining on a reasonable royalty rate must carefully tie proof of damages to the claimed invention's footprint in the market place."[1] But where does that footprint fall? And how large an imprint does it make? Both patent holders and accused infringers should take care to evaluate all potential areas where a patented invention may increase value over the next-best available alternatives. In a patent dispute, each party should perform this analysis as early as possible and in as much detail as it can afford.

An invention's footprint in the market place can be evaluated in a consistent manner by considering five levels of potential value, each represented by a ring, shown below.

The following sections individually discuss each of the five levels of potential added value. The levels build from an evaluation of value that is internal to the accused infringer ("Internal Value") through varying levels of value added for external entities (most often customers), to the most distant ring: the value added by the claimed invention to the accused infringer's brand ("Brand Value"). The table found later in this article identifies some of the questions that should be asked in evaluating each ring of value potentially added by the claimed invention.

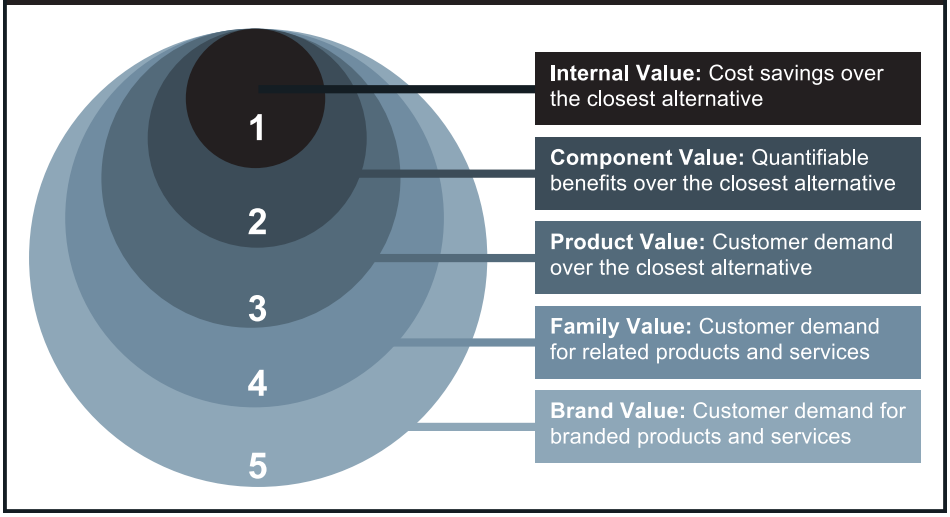
The patent holder's goal in its analysis is to build an economic case, supported by admissible evidence, that the claimed invention adds value in each of the five rings. The accused infringer's goal is the opposite: to challenge the patent holder's evidence and to introduce its own rebuttal evidence that the claimed invention does not add value in any of the five rings.

Each ring represents value *added* by the claimed invention, as compared to the next-best available noninfringing alternative, in accordance with Federal Circuit precedent.[2] The value analysis therefore must include consideration of not only the benefits of the claimed invention but also the availability and comparative value provided by noninfringing alternatives.

The patent holder carries the burden to establish the value of its claimed invention. As the patent holder attempts to add each outer ring to its value theory, the amount of required evidence increases, and the likelihood that the patent holder can obtain that evidence from the accused infringer decreases. The patent holder therefore not only must invest more time and money in obtaining evidence, but also must obtain that evidence from outside sources such as third parties or independent surveys. The patent holder at least should consider each ring, and weigh the costs against the possible benefit of increasing its potential recovery. The accused infringer also should evaluate each ring so it can prepare to respond.

The systematic and comprehensive approach to evaluating value of an invention described here will help ensure that patent holders do not overlook areas of value added and that accused infringers will not be caught unprepared to respond. An in-depth explanation of *how* to evaluate the economic value in each area would consume many more pages than this article will allow, but systematically evaluating *where* value might be added is an important first step.

Potential Value Created by the Invention



RING 1: INTERNAL VALUE
(Cost Savings Generated by the Invention)

The patent holder and accused infringer should first evaluate whether the claimed invention provides value by reducing costs compared to the next-best available alternative. "Internal value" is an appropriate name because the added value arises not from increased customer (external) demand, but instead from a reduction in the accused infringer's internal costs.

Internal Value (cost savings) can impact the reasonable royalty analysis in several ways. It can provide a quantitative basis to establish the royalty rate—an important consideration because the 25 percent rule will *not* be acceptable going forward.[3] It can influence the baseline royalty rate positively or negatively in a *Georgia-Pacific* analysis. However it may be used in the analysis, the bottom line is that it can provide an economic basis to establish the value of the patented invention. Therefore, Internal Value always should be evaluated by both the patent holder and the accused infringer.

RING 2: COMPONENT VALUE
(Benefits of the Smallest Salable Unit Incorporating the Invention)

After cost savings, the patent holder and accused infringer should consider the economic benefits conferred by the invention to the smallest salable component incorporating the invention. The analysis should focus on the component itself, and not on a larger product which includes the component and other parts not covered by the claimed invention.[4] The name "Component Value," therefore, describes the second ring of potential added value.

The economic focus for Component Value is a quantification of benefits provided by the component incorporating the claimed invention as compared to the next-best noninfringing alternative. Like Internal Value (cost savings), this quantification can affect the reasonable royalty analysis in several ways, including determining the royalty base, setting the appropriate baseline royalty rate, and adjusting the baseline rate under the factors articulated in *Georgia-Pacific*. Component Value (or lack thereof) therefore should be evaluated early in a patent dispute.

RING 3: PRODUCT VALUE

(Contribution of the Invention to Customer Demand for the Entire Product Incorporating the Invention)

The next ring of economic value potentially added by a claimed invention is the generation of customer demand for a product which incorporates the claimed invention and other parts not covered by the claim. "Product Value" therefore refers to the impact the invention, most often incorporated in a component of a larger product, has on customers' purchasing decisions for the larger product.

Some inventions are not incorporated in larger products with unpatented features, and the Product Value analysis would not apply to those. But as consumer products, especially computer and other electronic devices, increase in complexity, it is very common for the consumer product incorporating the claimed invention to also include many features not covered by the claims. For those products, the Product Value analysis is necessary if the patent holder wants to use the price of the entire product as the royalty base for determining the reasonable royalty (and equally necessary for the accused infringer to rebut that evidence and further establish that the claimed invention is *not* the basis for customer demand for the entire product).

The ability to claim the price of a product with only a portion of the features covered by the claimed invention has been addressed at length in many recent district court and Federal Circuit opinions.[5] The discussion has taken place in the context of the entire market value rule.[6] But the damages case law does not rule out the possibility that, even if the patent holder cannot satisfy the entire market value rule, the invention's impact on demand for a larger product may still increase the royalty *rate* for the smaller component incorporating the invention. As with all theories of value, such an argument must be based on sound economic evidence.

Evaluating the impact of the claimed invention on a larger product which includes features not covered by the claim often requires evidence that might not be in the possession of the accused infringer. For example, the patent holder may need to subpoena the accused infringer's customers, or may need to conduct a carefully constructed customer survey to evaluate the invention's impact on customer demand. Or, the patent holder may be required to sift through a substantial amount of documents, including email, from the accused infringer to find evidence that the claimed invention provides the basis for customer demand for the accused infringer's larger product. In any of these circumstances, costs increase. As the patent holder works to add each additional ring of potential value, the investment price goes up.

Accused infringers also may want to conduct their own surveys to demonstrate that the claimed invention does *not* provide the basis for customer demand for the accused product. Again, the price increases as the accused infringer pursues such evidence. The accused infringer should evaluate the strength of the patent holder's evidence, and its own budget, in deciding whether to proactively challenge the contribution of the claimed invention to each ring of potential value.

RING 4: FAMILY VALUE

(Contribution of the Invention to Customer Demand for Related Products in the Ecosystem of the Product Incorporating the Invention)

The fourth ring of potential value applies where the claimed invention contributes to demand not only for products incorporating that invention, but also for related products in the same ecosystem that do not themselves incorporate the invention. This "Family Value" concept has been applied in the context of "convoyed sales" to increase the royalty *base* aspect of the reasonable royalty,[7] but it also, given sound economic evidence, could be applied to increase the royalty *rate* applied to a base that does not include the additional related products.[8]

Just as establishing Product Value often requires more resources and evidence than establishing Component Value, establishing Family Value very likely will require more resources and evidence than establishing Product Value. The survey that may be needed would need to address the additional products in the family ecosystem, which would make the survey more expensive and time consuming. At this level of potential added value, it may be in the accused infringer's best interest to rely on challenges to the patent holder's evidence instead of commissioning expensive rebuttal surveys.

Family Value may be harder to reach, but it is not out of the question for a significant invention. Both patent holders and accused infringers should evaluate how Family Value fits into their economic models of the value of the invention.

RING 5: BRAND VALUE

(Contribution of the Invention to Customer Demand for Products Bearing the Same Brand as the Product Incorporating the Invention)

The outermost ring, Brand Value, might apply where an invention is so significant that it drives demand not just for products incorporating the invention, and not just for the ecosystem of products relating to the invention, but instead for an entire *brand* of products, whether or not those products are closely related. The challenge for a patent holder is first establishing that the claimed invention drives value for a brand, and second quantifying the impact that value has on sales of branded products.

If the patent holder can overcome those significant hurdles, Brand Value may play a role in quantifying the royalty rate to be applied or in adjusting the royalty rate upward in a *Georgia-Pacific* analysis. Although augmenting a patent infringement damages theory through Brand Value is a lofty goal, and may be very difficult to accomplish, patent holders should not rule it out as a possibility for a very significant, fundamental invention. Therefore, accused infringers also should not ignore Brand Value as they are developing their own theory minimizing the value of the claimed invention.

WHEN SHOULD EACH PARTY EVALUATE THE VALUE OF THE INVENTION?

Each party should apply this framework for evaluating the invention's value as soon as possible. The parties' budgets of course will have an impact on the amount of time spent on any licensing or litigation activity, including value evaluation. But to the extent a party can begin building a case for the value of a claimed invention at or before the filing of the complaint, it will improve its positions in both negotiations and litigation.

The patent holder always has the opportunity to evaluate the potential areas of value added by its invention before it files suit. It does not, however, have the benefit

Questions to Consider for Each Ring of Potential Added Value

Ring 1: Internal Value

Does the claimed invention reduce costs compared to the closest alternative? If so, by how much?

Ring 2: Component Value

Does the component embodying the claimed invention have benefits over the closest alternative? If so, what are they, and how can they be quantified?

Ring 3: Product Value

Is the claimed invention incorporated in a product with noninfringing components? If so, does the claimed invention provide the basis for consumer demand for that entire product? Does the claimed invention provide at least a portion of the basis for consumer demand for the entire product?

Ring 4: Family Value

Is the claimed invention incorporated in a product that is part of an ecosystem of related products? If so, does the claimed invention drive demand not only for the product incorporating the invention, but also for the related products? How can sales of related products be tied to the invention and quantified?

Ring 5: Brand Value

Does the claimed invention increase the value of the brand, even for products not closely related to the invention? If so, how can the increase in sales of branded products be quantified?

of full discovery from the defendant at that time. But its pre-suit evaluation of value can provide significant benefits: the opportunity to weigh potential recovery against litigation costs, the ability to prepare a defensible reasonable royalty case that does not depend on discovery, and the development of a powerful negotiating position.

The accused infringer also may have the opportunity to begin evaluating and diminishing the potential areas of added value before the patent holder files suit if the patent holder puts the accused infringer on notice. Developing an analysis minimizing the potential value of the asserted patent likely will strengthen the accused infringer's response to the patent holder's assertion.

If the parties do not perform pre-suit value analyses, they should do so right away once the lawsuit begins. They should consider, based on their budgets, retaining and engaging technical and economic experts immediately to help perform the evaluation and develop discovery plans to support their theories. The technical and economic experts will offer insights that attorneys often cannot, and engaging them early can help ensure that the value theories developed will be supported by expert testimony at trial.

As the value evaluation increases in depth and detail, the costs of that analysis also will increase. Not all patent assertions may justify the highest level of detail and engagement with technical and economic experts at the very beginning. But that engagement will be necessary to introduce a damages theory at trial. Each party should invest early in evaluating value to put itself in the best position for negotiations and trial. IPT

ENDNOTES

1. *Uniloc USA, Inc. v. Microsoft Corp.*, ___ F.3d ____, 2011 U.S. App. LEXIS 11, at *64-65 (Fed. Cir. Jan. 4, 2011) (citing and quoting *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 869 (Fed. Cir. 2010)).
2. *See Grain Processing Corp. v. Am. Maize-Prods. Co.*, 185 F.3d 1341, 1351 (Fed. Cir. 1999) ("Moreover, only by comparing the patented invention to its next-best available alternative(s) . . . can the court discern the market value of the patent owner's exclusive right . . . .").
3. *Uniloc*, 2011 U.S. App. LEXIS 11, at *56 ("This court now holds as a matter of Federal Circuit law that the 25 percent rule of thumb is a fundamentally flawed tool for determining a baseline royalty rate in a hypothetical negotiation.").
4. *See Cornell Univ. v. Hewlett-Packard Co.*, 609 F. Supp. 2d 279, 287-88 (N.D.N.Y. 2009) (suggesting that an appropriate "starting point for the royalty base" is "the smallest salable infringing unit with close relation to the claimed invention").
5. *See Cornell*, 609 F. Supp. 2d at 286-88; *Uniloc*, 2011 U.S. App. LEXIS 11, at *66-74.
6. *Id.*
7. *See, e.g., Rite-Hite Corp. v. Kelley Co.*, 56 F.3d 1538, 1549-50 (Fed. Cir.) (en banc), *cert. denied*, 516 U.S. 867 (1995).
8. *See Georgia-Pacific Corp. v. U.S. Plywood Corp.*, 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970) (stating, as factor 6, "[t]he effect of selling the patented specialty in promoting sales of other products of the licensee, that existing value of the invention to the licensor as a generator of sales of his non-patented items; and the extent of such derivative or convoyed sales").