

Lifting the Veil on the Commercial & Supply Chain Risks of IP

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The sourcing practices of a company can have profound implications on the commercial success of their products, particularly if they are system integrators. But one aspect of sourcing that is often overlooked is the intellectual property infringement risk exposure a company has when insourcing a supplier-developed component.

Take a moment to contemplate these scenarios:

- Has a particular vendor incorporated a patent protected technology of a competitor or another company into what they're providing to you?
- Is that vendor indemnifying you from patent litigation on the components they provide if you (or they) are sued?
- What happens if a third party hits you with a patent infringement claim for technology which is in a vendor supplied component?
- What happens to your rights to have a second source manufacture the supplied components if a vendor goes out of business as a result of an infringement lawsuit (or otherwise)?
- What happens to your rights to have a second source manufacture the supplied components if a vendor decides to divest a line of business which manufactures a key component for your product?

Will your business be hamstrung by someone else's decisions? The commercial implications of a constrained supply chain and the potential of having to pay for the cost of royalties to a third party are not typically contemplated in sourcing decision-making.

Depending on the design decisions of the system integrator, the manner in which the scenarios above ultimately play out will be affected. These choices could introduce a significant commercial and sourcing risk by the sub-component supplier to the sourcing company around IP infringement.

If the technology from the sub-component supplier has potential infringement issues against a counter-party, they will likely bear a financial burden to license the technology and IP rights from that counter-party. The cost of this license would undoubtedly be passed on to the sourcing company in a supply contract and would have to be factored into the pricing model. This also speaks to a strong incentive companies have in the modern business climate to own some high quality IP assets that could be cross-licensed to defray some of the financial burden.

Knowing these risks and the commercial impacts beforehand will enable a company to undertake an independent assessment of those commercial risks and mitigate them before down-selecting a supplier. A method is required which provides an evaluation of the risks and the determination

of the scope of liability that the sourcing company will need to cover associated with selecting one sub-component supplier or another.

These risks can be quantified and mitigated through a systematic process of qualitative patent landscaping, product claim mapping and freedom to operate analysis. Contemplating whether domestic manufacture or importation, a company will need to consider the implications of both scenarios. A comprehensive patent landscape based on a qualitative assessment will be critical to success.

The methodology for assessing and mitigating the IP risk is as follows:

Qualitative IP Landscaping - Aggregation & Analysis of Relevant Results

1. Classification of keywords for the component and technology for each patent.
2. Synopsis of the invention that the patent is claiming.
3. An assessment of the relevance (low, medium, medium/high, and high) of the patent to the selected technology architecture or that of sub-component suppliers will be performed.

Low
Patent / Application is not relevant to the pervasive set of technologies and products in the industry.

Medium
May have been relevant in the past or is simply not broadly applicable. Multiple methods of design around exist.

Medium/High
Important filings which the industry needs to be cognizant of, but these can likely be avoided / mitigated.

High
Critical filing which has been asserted, licensed or enforced, or is otherwise highly likely to be in the future due to claim breadth.

Risk Assessment - Product Claim Mapping

1. Define potential similarity between patents and selected technology or that of sub-component supplier.

Patent #	Title	Component	Technology	Relevance to Utility-scale WTG Industry	Company 1		Company 2	
					Risk to Product #1	Risk to Product #2	Risk to Product #1	Risk to Product #2
USXXXXXX	DC-DC CONVERTER CIRCUIT USING AN LLC CIRCUIT IN THE REGION OF VOLTAGE GAIN ABOVE UNITY	Electrical	Frequency / Voltage Regulation	M Common technology, but design around possible.	M Requires investigation, design alternatives exist.	M Requires investigation, design alternatives exist.	M Requires investigation, design alternatives exist.	M Requires investigation, design alternatives exist.
USXXXXXX	TURBINE	Drivetrain	Reliability	L Older technology, limited industry applicability.	M Requires investigation, design alternatives exist.	L Technology not present.	L Technology not present.	L Technology not present.
USXXXXXX	A PROTECTED WIND TURBINE BLADE, A METHOD OF MANUFACTURING IT AND A WIND TURBINE	Blade	Manufacturing	M Only relevant if VARTM process is used.	L Technology not present.	L Technology not present.	H Similar design architecture.	H Similar design architecture.
USXXXXXX	A WIND TURBINE AND A DIRECT-DRIVE GENERATOR	Generator	Efficiency	H Widely used technology.	H Similar design architecture.	H Similar design architecture.	H Similar design architecture.	L Technology not present.

Risk Mitigation

1. Construction of claim charts.
2. Prior art search will be completed based on patent and public domain information landscape to determine if limiting or invalidating art exists that might predate the relevant



patent(s). Those items which were identified as not relevant to the scope of the design were reclassified as Low and items which required further review were flagged. The remainder of the portfolio evaluation is evaluated on a risk basis.

Risk Categories	Product		Industry Average		Composite Risk Score
	#	%	#	%	
High	18	0.6%	32	1.0%	Below Average
Medium/High	167	5.2%	224	7.0%	Below Average
Medium	1,881	58.8%	1,728	54.0%	Above Average
Low	1,134	35.4%	1,216	38.0%	Below Average
Total	3,200	100%	3,200	100%	

Recommendation to pursue patent acquisition or licensing, or alternatively pursue an assessment of invalidity or non-infringement in conjunction with legal counsel.

The seeming complexity of navigating the commercial and supply chain risks of IP infringement can be demystified with a sensible and pragmatic approach. An independent assessment can be performed and is highly encouraged for a major program in which supplier evaluation is being contemplated.

For more information please visit www.totaro-associates.com/ip-risk and get in touch with us.