The Hidden Risk of Venture Capital Investments

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Executive Summary

Venture Capitalists often invest where the opportunities align with their interests, but also where the opportunities for a favorable exit are greatest. The Software Technology sector certainly has opportunities for viral growth, but also has the greatest risk of patent litigation.

In this paper, we start with venture capital data by technology category, then apply our research to assess the U.S. litigation trends within these categories. It will be shown that the top three-quarters of Venture Capital investments are composed of only five technology sectors. Within these top five sectors, there are nearly 9,500 patents that have previously been asserted and are still in force, and over 1.5 million patents in force that may be asserted against VC-supported companies. Some may then suggest that Venture funds be diverted to "safer" technology sectors. This is possible, but not easy to do. Of the fifteen technology categories defined by the National Venture Capital Association and Price Waterhouse Cooper, nine technology categories each has over 1,000 patents that have been asserted and are still in force.

We believe that nearly all opportunities in which Venture Capital firms may have an interest will also come with substantial risk of patent litigation. The question, then, is how to mitigate the risk of patent litigation for promising technology ventures. We believe the answer should include patent defense insurance. This insurance provides a level of protection against threats of patent infringement, thereby enabling the venture based company the freedom to focus on the business of making great products for their customers.

Discussion

Patent litigation trends in the United States have been the subject of mainstream media due to the sometimes large damages, potential for an injunction or extreme approaches used by some plaintiffs. In 2008, DataTreasury was so aggressive with their patent assertion campaign against banks that Senator Jeff Sessions sponsored a provision to grant banks immunity from litigation. In 2012, Apple's assertion of 30 patents resulted in a judgment of more than $1B against Samsung.

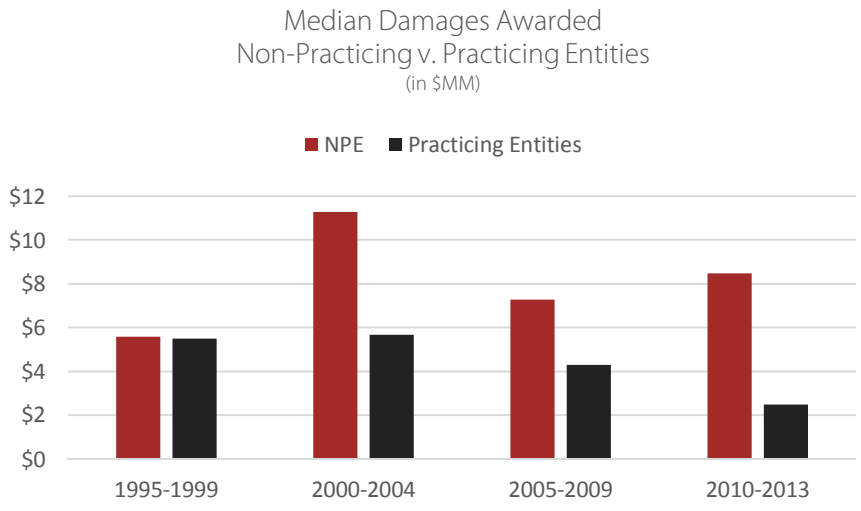

Figure 1

These are certainly extreme examples, but even median damages are

increasing. Figure 1 shows data provided by PricewaterhouseCoopers[1] (PWC) in which median damage awards are shown for four-year data groups, including both non-practicing entities and practicing entities. For practicing entities, median damages have declined from $5.7M in the 2000-2004 timeframe to $2.5M in the 2010-2013 timeframe. Even so, the risk to a VC-backed business of suffering a $2.5M loss, not including attorney fees or the distraction from the core business, can have a devastating effect. Moreover, it gets worse. If non-practicing entities assert patents, the median damages are more than 3x at $8.5M.

The risk of litigation certainly depends on the technology sectors in which a VC firm invests. According to The MoneyTree™ Report[2], provided by PWC in cooperation with the National Venture Capital Association, Software made up more than 40% of VC investments in the past three full years (Figure 2). Yet the Software Technology sector has the highest number of patents asserted. Figure 3 shows Patents in Force and Litigated Patents by Technology sector. Software includes the highest number of patents in force (576,819) and the highest number of litigated patents (3,842) of all technology sectors. This is a

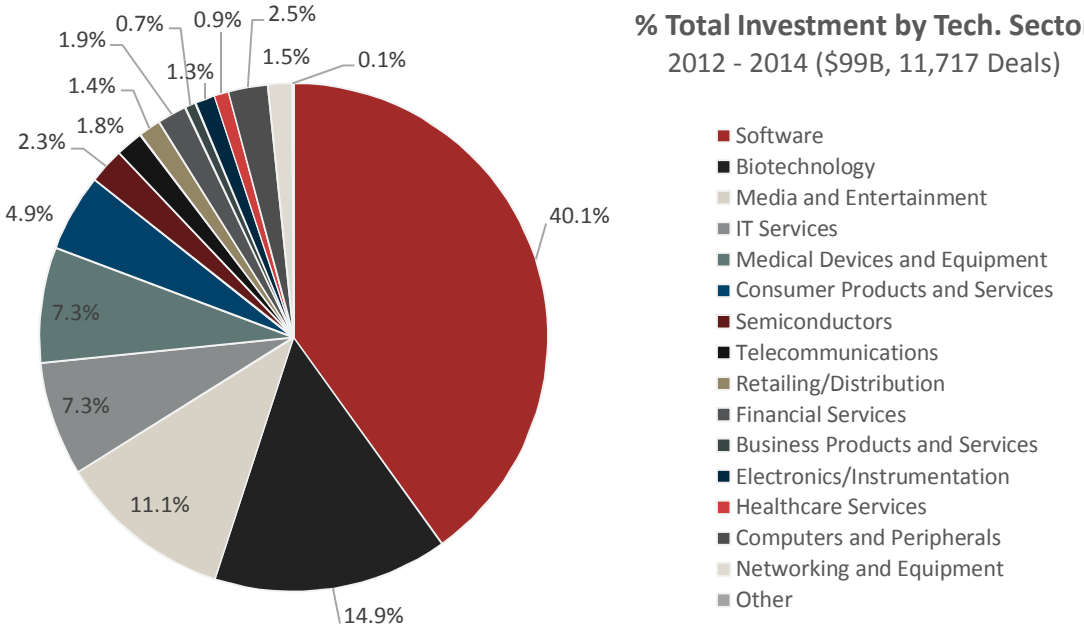

Figure 2

significant risk. In addition, software patents are among the most ambiguous to interpret. For example, United States Patent No. 6,625,617, "Modularized data retrieval method and apparatus with multiple source capability" claims:

> *A computer-implemented method comprising:*
>
> *providing at least a first driver which contains programming for accessing at least a first data source and a second data source, different from said first data source, said first driver containing a first set of program*

[1] Barry, Chris. "2014 Patent Litigation Study." 2014 Patent Litigation Study. PricewaterhouseCoopers, 1 July 2014. Web. 20 Mar. 2015.

[2] "The MoneyTree™ Report." The MoneyTree™ Report. PricewaterhouseCoopers and National Venture Capital Association, 1 Jan. 2015. Web. 20 Mar. 2015.

instructions configured for use in connection with at least said first data source and containing a second set of program instructions configured for use in connection with at least said second data source;

using said first driver to automatically obtain first information about the data structure of at least a first accessed data source, wherein said accessed data source is one of said first data source and said second data source, without the need for human analysis of the first data source or said second data source;

said first driver including at least a third set of program instructions which is executed regardless of whether said accessed data source is said first data source or said second data source.

Clearly, this is rubbish to the casual reader. One could not even blame skilled software engineers for wondering whether their design infringed this claim. Even so, this patent has been asserted multiple times.

Other technology sectors pose a substantial risk to VC investors as well. For example, the Biotechnology sector, which makes up nearly 15% of VC investments (Figure 2), includes more than 2,000 patents that have been litigated and are still in force, and over 240,000 patents that may be asserted at any time (Figure 3).

In the period 2012 – 2014, the top five technology sectors which include Software, Biotechnology, Media and Entertainment, IT Services, and Medical Devices, account for 80% of total VC investments. Of these five technology sectors, 45% of asserted patents are still in force, and there are more than 1.5M patents in force that may be asserted.

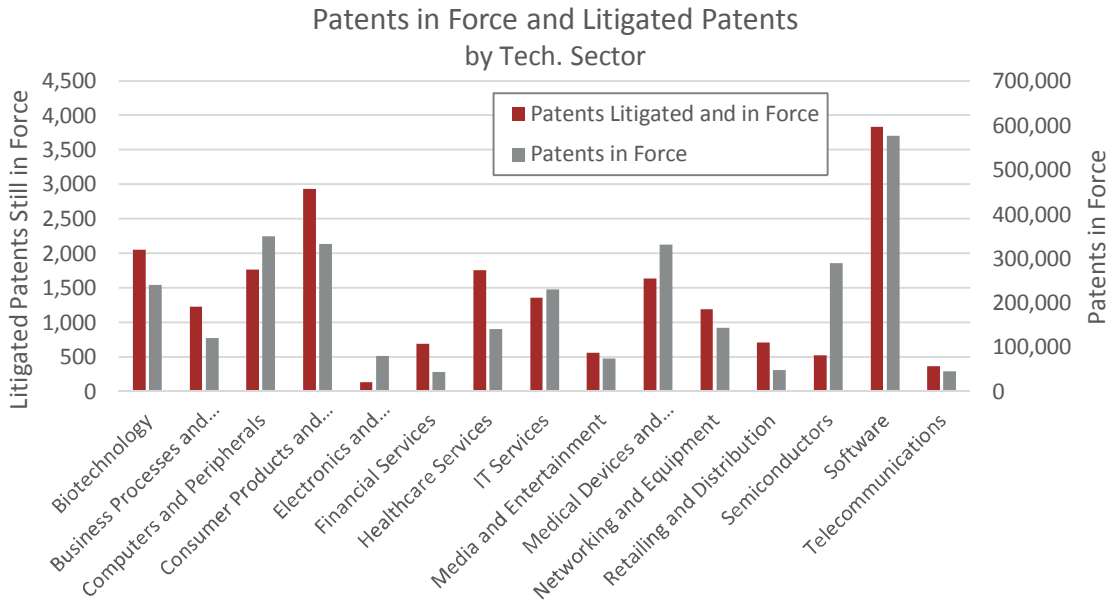

Figure 3

What is the solution? Are there technology sectors that are considered safe? Figure 3 provides some insights but may be deceptive. The Financial Services sector has substantially fewer patents in force than many of the other technology sectors. "Fewer" in this case is just under 45,000, which is still an imposing number of active threats against a young company. Of these, "only" 695 have been enforced. However, with median damages in the millions of dollars, one case is too many. It should be abundantly

clear that the technology sectors for which Venture firms have an interest (as represented in the Figures) come with a measure of risk that cannot be ignored.

The solution for VC investors is three-fold:

1. **FTO** - The specific opportunity should include a "freedom to operate" (FTO) opinion by a qualified patent attorney early in the product development cycle. If performed early enough, design-arounds or limitations of features may be considered to avoid particularly troublesome patents.
2. **Design Discipline** – Establish procedures to avoid "design drift", in which engineers may inadvertently change the design back toward features that were previously designed around. Surprisingly, this requires very consistent discipline.
3. **Patent Insurance** – Obtain insurance to defend claims of patent infringement, recognizing that a patent owner may assert their patent – even if their claim is frivolous. This also protects against patents that were not considered in the FTO opinion.

Summary

High-growth investments, which are of interest to VC firms, are likely to incur substantial risk of patent litigation regardless of the technology sector. Even with sound practices to mitigate the risk, the large number of patents that may be asserted poses a substantial risk to investors. Patent insurance should be considered as a legitimate way of minimizing the overall risk of patent infringement so that venture based companies are free to focus on business.