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PERSPECTIVE

Are Patent Wars Coming for Autonomous Vehicles?

Patents are often at the heart of high-stakes litigation. While there is some debate as to what began the smartphone patent wars, Nokia suing Apple in 2009 is thought to have signaled the beginning of the era which has continued to the present day. For example, in May 2018, after seven years of litigation, Apple was awarded $539M in damages from Samsung. On June 27, 2018, Samsung and Apple agreed to a settlement, ending the seven year battle but many others are still ongoing.

Will this trend take hold with autonomous vehicle technology? Given the wave of wireless technology making its way to the automotive/mobility space, and the litigious bent of some owners of the technology, onlookers in the automotive space worry that patent wars in the autonomous vehicle (AV) space may be inevitable.

At the recent Auto IP USA event in Detroit, experts from across the automotive industry and beyond discussed collaboration and success in the intellectual property (IP) space. This article highlights some of the issues discussed.

Detroit, Meet Silicon Valley

> "If the tire industry is being disrupted, your industry is probably going to be disrupted too."
> – John Woods, Executive Director, Innovation and Collaboration, Bridgestone Americas Inc.

A culture of tradition has marked the business dealings of major U.S. automakers, where the status quo has been an aversion to patent litigation. But Detroit players are not the only ones with a seat at the autonomous vehicle table. Google's self-driving car project, which began in 2009, has often been credited with bringing Silicon Valley to the table and kick starting the autonomous vehicle revolution. As Frank A. MacKenzie, Senior IP Counsel for Ford Global Technologies, LLC shared: "Without Google's insertion into this area, we wouldn't be having a discussion at this time about autonomous vehicles."

Patent Filings in the AV Space

Patent filings in the U.S. relating to autonomous vehicle technologies (from both Detroit and Silicon Valley companies) have increased significantly over the last 10 years. This upward filing trend is in contrast to the flat and recent downward trend of overall U.S. patent filings.

While design patents played a significant role in the smartphone patent wars, the number of design patent filings in relation to autonomous vehicles remains miniscule. This is perhaps because current AV development is more focused on technology than on design aesthetics, which may become a later focus.

Open Source and Licensing

On June 12, 2014, Elon Musk famously penned a letter entitled All Our Patent Are Belong to You, in which Musk pledged "Tesla will not initiate patent lawsuits against anyone who, in good faith, wants to use our technology." Some debate ensued over whether this was a deliberate PR stunt or a sincere effort to embrace a charitable spirit towards open source electric vehicle technology.

Tesla counts itself among the members of the LOT Network, including Google, Ford, GM, Uber and other major automotive manufacturers and high-tech companies. The LOT Network provides a license on transfer (LOT) arrangement intended to curb litigation initiated by patent assertion entities (PAEs) who generate more than 50 percent of their gross revenue from patent assertion. The license triggers when patents owned by LOT members are sold to PAEs, preventing the PAE from asserting the acquired patents against LOT Network members. Notably, LOT Network estimates that PAEs are responsible for approximately 84 percent of high-tech patent litigation in the U.S.

Other new and existing patent licensing entities, including Avanci, Via Licensing and Nokia, focus on licensing patents relating to wireless and communications technologies that are integral to the new Internet of Things (IoT) and AV spaces.

A relevant question on licensing was asked by Pramath Malik, Vice President, Business Development at patent analytics company Dolcera: "What is going to be the approach of the first company who tries to license a portfolio when their company is not doing well?"

Who is Picking Up the Tab?

> "Licensing solutions between the wireless industry and the auto industry are tricky because of different views on IP and differences in supply chain. How do you price the IP and set indemnity in a commodity telematics unit and still win business?"
> – Luke McLeroy, Vice President, Business Development, Avanci

Traditionally, automotive OEMs have often asked for and received full indemnification from suppliers. However, as tensions grow over royalty rates relating to wireless connectivity and other high-tech innovation, the status quo of full indemnification may not be feasible for autonomous vehicles.

Royalty rates for standard essential patents (SEPs) in the U.S. relating to wireless technology are proving to be particularly polarizing in the licensing space. Such standard essential patents are licensed on fair, reasonable, and non-discriminatory (FRAND) terms. But, as noted by John S. LeRoy, Shareholder at Brooks Kushman PC: "[the] total royalty to put 4G/LTE technology in a car is about $30, but the cost of parts is $15. So, the royalty

being demanded is 200% of the cost of the technology. Should the royalty cost more than the technology itself?" Within the multi-tiered auto industry supply chain, who will foot the bill for such licenses, and how might costs be split?

Conclusion

While patent litigation in the AV space remains muted thus far, and with no sign of AV-related patent filings slowing down, relevant questions for the future include:

- How will concerns over indemnification and licensing be addressed within the automotive supply chain?
- What about continued tension over royalty rates?
- How much will the differing cultures in Silicon Valley and Detroit affect partnership and licensing discussions?

The smartphone patent wars started after significant success and worldwide sales had occurred, essentially in a mature state of the smartphone industry, compared to the current early state of the AV market (despite a very mature overall automotive market). With the high stakes and massive growth predicted in the AV industry, coupled with the importance of IP, it seems not so much a question of if AV-related patent lawsuits will follow, but when and in what form.

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