Synopsis

With the advent of new applications for wireless communications, the question of how to compensate owners of patents essential to standards (SEPs) for wireless communication is increasingly important to industry. This paper focuses on one aspect of that question: whether it is consistent with rules requiring that SEPs be licensed on Fair, Reasonable, and Non-Discriminatory (FRAND) terms for royalty rates (and other licensing terms) to vary based on the specific application for which the standard is used. In this paper, we explain why varying licensing terms for SEPs based on the application for which a SEP is used may not be consistent with a patent owner’s commitment to license its SEPs on FRAND terms. We are concerned that, by licensing SEPs at different royalty rates based on the application the licensee develops, a patent owner may seek compensation for value that it did not create, for technologies that it did not patent, and for innovations for which it cannot rightfully claim credit.

The threat of application-dependent licensing of SEPs is of increasing concern in a digitised world where Information Communications Technology (ICT) has become an integral part of our economies and societies. It is critical that input costs, such as the royalty expense of licensing SEPs, be reasonably predictable, so that creators and manufacturers of products that define the Internet of Things (IoT) can make the large investments necessary to bring innovative products to market. Lack of clarity and certainty regarding SEP licensing practices will hinder—rather than enable—the take-up of these digital technologies. More specifically, innovative companies considering investments risk being asked to pay different royalties for the use of the same patented invention. Such different royalties would allow SEP owners to unfairly capture the value of innovations contributed to the product by the implementer—not the SEP owner. These concerns are particularly important as new applications emerge that do not fit into prior frameworks for SEP licensing, as will be the case with IoT.

What Is Application-Dependent SEP Licensing?

Standards are often not industry-specific or product-specific. Communication standards, for example, can be implemented in phones, cars, thermostats, watches, appliances and hundreds (or even thousands) of additional types of devices. All of these very different downstream devices can incorporate the same components that implement the same standards.
Proponents of application-dependent licensing seek to charge different prices for the use of an invention claimed in a single SEP depending on what type of downstream product the technology covered by the SEP is used in or what kind of service the patented technology is used to provide. For example, under an application-dependent licensing regime, a chip implementing LTE technology that is used in a smart lighting system might carry higher licensing fees than that very same LTE chip would if it were included in a thermostat. This is why application-dependent licensing can give rise to concerns of use discrimination. Said differently, application-based licensing is akin to charging a different price for a brick depending on whether it is used to build a cottage or a mansion to capture some of the additional value of the mansion. While such price discrimination may be permissible for licenses to patents that are not subject to a FRAND commitment, it conflicts with the SEP owner’s prior commitment to license its SEP(s) on fair, reasonable, and non-discriminatory terms. SEPs generally cover only discrete aspects of particular components, and rarely purport to cover downstream innovations employing the applicable standard. As such, rewarding SEP owners based the value added by these downstream innovations over-rewards SEP owners to the detriment of other industry participants and customers.

Application-Dependent Licensing Conflicts With FRAND

Most interoperability standards are written without reference to specific applications for which the standard might be used. For instance, the vast majority of SEPs essential to implement communications standards are fully embodied in components such as LTE chipsets and Wi-Fi chipsets. Through a collaborative process, members of a standard setting organization (SSO) choose between competing technologies to create a technical specification that represents the contributions of many different companies. If a company owns a patent essential to implement the standard (SEP), that company’s FRAND commitment ensures that it can be fairly compensated for the technical value of the invention claimed in the SEP. However, varying licensing terms based on the value the entire standard adds would permit SEP owners to capture the additional value created by the standard setting process itself. Beyond that, it would also permit an SEP owner to appropriate value created by those who incorporate upstream, standardized components into downstream products and services. Such products and services may contain many innovative features unrelated to the SEP owner’s patented invention, and permitting the SEP owner to claim a portion of the value that these innovations provide is unfair to those who created that added value.

For example, when an automaker creates, develops and markets a new innovative feature (such as real-time remote diagnostics) utilizing standardized communication components, that new feature usually will not have been created by the owner of a SEP essential to the relevant communications standard. In this example, the remote diagnostics feature is beyond the scope of such SEP and it is the automaker that has innovated to create value for consumers. It would be neither fair nor reasonable for the SEP owner to seek royalty payments based on the value added through the innovation of the automaker or based on a particular downstream use of the standardized technology. Rather, any relevant SEP license fees that the licensee pays should be based on the value of the technology claimed in the relevant SEP—and not on any additional value it contributed through its own innovations (i.e., innovations that the SEP owner did not think of and did not patent). This is not a new or surprising result, as patents are valued based on the invention they claim—not on the value added by others who make specific application of the patented invention.

Impact On Consumers And Innovation

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As described above, allowing SEP owners to differentiate between applications of a standardized technology could discourage the development of new applications for that technology by allowing SEP owners to appropriate the value created through the investments of others. In the same vein, allowing application-dependent licensing of SEPs could adversely affect the interests of SSOs and their participants by discouraging implementation and propagation of standards. But the most significant impact would be on consumers. Besides reducing consumer choices in products by discouraging innovative uses of existing standards, application-dependent licensing could also unfairly enrich SEP owners by permitting them to tax innovation they did not create. By artificially increasing the costs implementers of standards face, application-dependent licensing would inevitably raise the prices consumers pay for products that implement common standards like LTE and Wi-Fi.

Patent laws are designed to reward and encourage the patent owner’s own innovation—not to allow a patent owner to co-opt or discourage follow-on innovation by others. Indeed, a healthy innovation policy encourages businesses to develop and market new and valuable uses for standardized technologies. Such a policy promotes the development of separate downstream innovations that are distinct from and build on top of standardized technologies.

**Conclusion**

For these reasons, application-dependent licensing of SEPs should be rejected. SEP owners are entitled to compensation based solely on the technology they have created, contributed to the standard and patented—no more and no less.

As the development of IoT devices moves forward, we support reasonable and fair compensation for SEP owners based on the actual value of their inventions. We do not support application-dependent licensing approaches that seek to co-opt the additional value created by others. We firmly believe that were the European Commission and other public authorities to support an application-depending approach to SEP licensing, it would create rather than remove a barrier to industries adopting IoT or industry 4.0 technologies. Pursuing such an approach in one specific region (e.g., in the EU) could in particular harm the competitiveness of companies manufacturing within that region compared to competitors manufacturing in other regions, as thereby higher royalties for licensing SEPs would apply for products manufactured in such region than for the same products manufactured elsewhere.

**NOTE:** The positions and statements presented in this paper do not necessarily reflect the detailed individual corporate positions of each member.
WHO WE ARE

The Fair Standards Alliance (FSA) is an association that has been incorporated to promote a number of Key Principles regarding the licensing of standards-essential patents (SEPs) on a fair and reasonable, and non-discriminatory (FRAND) basis. We believe that FRAND means something. It means that patent owners are entitled to reasonable compensation for their contributions to the standard, no more and no less. It means that standard implementers are entitled to licenses on fair and non-discriminatory terms. Behaviors that support these fundamental principles should be encouraged; abuses that undermine these fundamental principles should be discouraged.

The FSA membership constitutes a broad range of industry stakeholders. Our member companies work in different markets, different technologies and different levels of the supply chain. The FSA includes companies that spend millions (or in some cases, billions) of Euros annually developing technologies, participating in standards development and licensing our SEPs to others. Together, its members own more than 160,000 patents, and spend more than $20 billion in annual R&D.

In addition to large patent holders, the FSA’s membership also includes prominent product companies and consumer brands, as well as implementers that develop, market and sell standardized goods, and who may license SEPs from others. Indeed, most of our member companies are both innovators, inventors and implementers. Each of our members favours balanced approaches to SEP issues that address the legitimate interests of both SEP holders and of potential licensees.

The Alliance seeks to promote some key principles that FRAND requires at least the following behaviours.

(1) A license for a SEP should be available at any point in the value chain where the standard is implemented, and the important terms of those licenses should be transparent to other companies implementing the same standards;
(2) A FRAND royalty should reflect the value of the invention. In most cases that means that it should be based on the smallest device that implements those patents, and additionally it should take into account the overall royalty that could be reasonably charged for all patents that are essential to that standard;
(3) Injunctions and similar legal threats should be a last resort;
(4) A FRAND commitment made in respect of a SEP should not fall away simply because the SEP is sold to another company.

Our members are united in the view that unfair and unreasonable SEP licensing practices pose a significant risk to the innovation eco-system, create barriers to entry for new market players, threaten to stifle the full potential for economic growth across major industry sectors, and ultimately harm consumer choice.