Picture: Dmitry Rukhlenko / Shutterstock

FRAND and the smartphone wars

Jonathan Radcliffe and **Gillian Sproul** of Mayer Brown examine FRAND licensing and how it affects competition law in the smartphone market

The patent wars raging in the global technology sector show no signs of a ceasefire. If anything, the tempo is increasing. The sector is currently seeing a wave of acquisitions of massive multi-billion dollar patent portfolios covering smartphones and computer tablets, driven by their purchasers' desire to equip themselves with ammunition in the increasingly vicious battle for global supremacy over mobile platforms.

One of the significant features of telecoms patents is the complex interlocking network of technical standards which rests on a series of essential patents that must be licensed on terms that are "fair, reasonable and non-discriminatory" (FRAND[1]).

This FRAND licensing requirement is a prime example of the way in which competition law is used to reduce patentees' market power and to promote competition, and it has vital strategic implications for the owners of telecoms patent portfolios.

FRAND's influence on how the market for mobile platforms develops in the future cannot be underestimated.

- When patentees commit their patents to a technical standard those patents – or particular claims – are treated as essential to that standard. If so, patentees are required under their obligations to the standards setting organisation (SSO) and under competition law to license those patents on FRAND terms to willing licensees. This substantially levels the playing field, giving their competitors ready access to the patents – and the market – at the sole cost of a reasonable royalty.
- Patentees are powerless to bar access to competitors that are willing licensees of their standards patents – they cannot get injunctions in these circumstances and any attempt to block access is likely to breach competition law. As a result, the battle has been forced on to different terrain, as the combatants fight over whether such patents are truly "essential". Patentees will look for grounds to assert that FRAND-based licences are not applicable, and their competitors to counterattack by alleging that non-declared patents should properly be treated as essential and so licensable on a FRAND basis.
- Uncertainty over the meaning of FRAND generates further conflict – in the EU at least; there is no clear definition of "fair", "reasonable" and "non-discriminatory". This is not helped by settlements, rather than full decisions, in each of the competition law cases so far brought by the European Commission in this area and by only limited guidance in the European Commission's December 2010 Horizontal Guidelines[2].
- The value of patents that are not encumbered by FRAND licensing obligations is therefore commensurately greater. The same is true of other non-patent IP rights that have the potential to create strategic bottlenecks such as the shape and design of smartphones and computer tablets.
- A major issue between the combatants is likely to be the extent to which a patentee of a FRAND-encumbered patent can use these patents to force its competitor to cross-license unencumbered patents. The commercial imperative to seek to do so is clear, but this issue remains to be determined by the main courts around the world.

Standard setting

It is commonplace in many fields of technology – mobile phones included – for SSOs to set technical standards to ensure that different manufacturers' products are compatible. The central importance such standards play in the mobile platform wars is underlined by some of the technologies covered by standards which will be familiar to every user of a mobile device – GSM, GPRS, EDGE, 3G, and 4G through to the JPEG standard for digital photography if the mobile device is camera-enabled. These and similar standards result from agreements among competitors to limit the extent to which they compete and they are seen as creating an incentive for the owners of patents making up the standard to leverage any market power they acquire. It is therefore no surprise that the competition authorities make it their business to promote open and transparent standard setting procedures and open access to the standards that are ultimately set and the patents that underpin them.

When setting a standard, the relevant SSO will require industry participants to notify it of any patents which are "essential" for use in the standard, as well as issuing a general request to interested parties to do so. Broadly, this requirement of "essentiality" equates with patent infringement, in that the manufacture, sale, etc of products and/or processes complying with the relevant standard will inevitably infringe the essential patents covering the standard.

FRAND

Once the patents that are essential to the standard have been identified, the relevant patentees are required to give a commitment to license those patents on FRAND terms to all would-be users of that standard, whether competitors or not. Some SSOs are satisfied with a general commitment; others enshrine FRAND obligations on a contractual basis. To comply with competition law, the patentee's commitment must be irrevocable and provided in writing prior to adoption of the standard. The patentee must also ensure that any company to which it transfers the patent, including the right to license it, will be bound by the commitment. This ensures that any manufacturer adopting the technology embodied in the standard is protected from the start and continues to be protected.

The core function of FRAND terms is clear: to prevent post-standardisation hold-up by ensuring that a patentee cannot obstruct the implementation of a standard by refusing to license or by setting excessive royalties once the industry has been locked in to the standard.

"This FRAND licensing requirement is a prime example of the way in which competition law is used to reduce patentees' market power and to promote competition, and it has vital strategic implications for the owners of telecoms patent portfolios."

All patentees with FRAND patents effectively grant the adopter community (including putative competitors) the irrevocable right to use those patents in exchange for reasonable terms – including a reasonable royalty – and the irrevocable waiver of the right to an injunction and associated types of relief.

The meaning of FRAND, however, is not clear. In its December 2010 Horizontal Guidelines, the European Commission states that it is for the relevant rightsholders to assess for themselves whether their terms, and in particular their royalties, comply with their FRAND commitment. The guidance the Commission gives is focused on disputes. It states that in these circumstances an assessment of whether royalties are unfair or unreasonable should be based on whether a royalty "bears a reasonable relationship to" the value of the economic value of the patent or other right. It then rejects the use of a cost-based method of calculating the royalty, because of the difficulty in assessing the costs incurred in developing the patent (or other right), and proposes alternatives. These include comparing royalties charged before and after the industry became locked into the standard, obtaining an expert assessment of the patent's "objective centrality and essentiality" to the standard and using royalties charged for the same patent in other comparable standards. The Commission does not, however, assist the patentee seeking to calculate a FRAND royalty – it does not address individually the meanings of "fair", "reasonable" and "non-discriminatory".

A shortage of decided cases has perpetuated this uncertainty. The cases the European Commission has brought in this area so far, under the EU rules that prohibit abuse of market dominance, have all been settled. It investigated complaints about telecommunication firm Qualcomm's licence terms and "unreasonably high" royalties for rights it held in standards forming part of 3G mobile technology. The proceedings were closed after Qualcomm agreed terms with the complainants and the short statements subsequently issued by the Commission are unhelpful[3]. Technology licensing company Rambus involved a patent ambush – non-disclosure of an essential patent until after the standard requiring use of Rambus' patented dynamic random-access memory (DRAM) technology had been adopted. The proceedings were settled by Rambus agreeing bundled five-year licences for certain products, not to charge for some of those products and to set its royalties for DRAM chips and memory controllers at 1.5% per unit of selling price[4]. This provides a little more information, but no explanation or exposition of the Commission's rationale.

Based on broad principles, the constituent elements of FRAND might be defined as follows:

- "Reasonable" means that the royalty and other licence terms must not be excessive or extreme. Licences will be on a non-exclusive basis. Unusual terms – price or otherwise – must have a valid objective reason.
- A "reasonable royalty" must be – or approximate to – the price that would hypothetically be reached in an arms-length negotiation. A patentee can use royalties charged by other companies for comparable essential patents and royalties it charges in similar but competitive markets. There is, additionally, a body of patent case law on damages that can be used to assist in determining what a reasonable royalty would be in the standards context (patent law's default damages rule is that a reasonable royalty be paid for the infringer's use of the invention).
- "Non-discriminatory" means that the patentee cannot without objective reasons be selective about the firms it licenses to or discriminate between licensees in the terms it offers or royalties it charges, as this would distort competition among the relevant licensees. Discriminating against and between commercial rivals (including those downstream), or offering royalty rebates or incentives to licensees, will be discriminatory. But it should be recognised that the "ND" part of FRAND is a difficult area of law, with potentially different nuances of approach between the EU and the US. Nor are matters helped by the uncertainty generated by virtually no SSOs specifying in detail the terms that are meant to embody the "R" and the "ND" terms on which licenses must be granted.

In short, there are a multitude of ways in which a licence can be granted that are potentially compliant with FRAND, and a plethora of ways a patentee can seek to handicap or hold up a commercial rival. It is little wonder that FRAND disputes are increasingly finding their way in front of the courts – especially in the main patent jurisdictions of the US, the UK and Germany.

Strategic implications for FRAND-encumbered patents

Once it has been declared essential, that patent will remain FRAND-encumbered even if subsequently sold. A purchaser of a substantial patent portfolio is therefore likely to acquire FRAND-encumbered patents, and be considering whether – and to what extent – they can be deployed to further the purchaser's commercial interests.

The FRAND-encumbered patent is fundamentally an under gunned vehicle in the battle for global supremacy over mobile platforms. FRAND patents are strategically excellent for generating a royalty stream, but cannot be used to shut a competitor down. Asserting a FRAND-encumbered patent in litigation is therefore often seen as weakness, and indeed doing so can potentially attract the competition regulators' attention.

Conversely, a competitor can use a patentee's FRAND-encumbered patent both defensively and offensively. It is a defence to allegations of infringement that a patent has been declared essential to a standard and must therefore be licensed on FRAND terms. And the competitor can carry the battle to the patentee by requesting the courts to declare that the competitor is owed a licence on FRAND terms and to determine what those terms should be – in particular the level of royalty rate.

The question whether a particular patent is essential to a standard can be of significant commercial importance. The greater the number of patents a patentee has forming a standard, the greater the licensing revenue payable. This can lead to over-declarations, especially by patentees in areas of technology which their products do not use and by non-practising entities (and hence where both need no cross-licenses).

Because there is often no provision for the SSO to check whether patents that have been declared as essential really do have this status, over-declaration can confer significant commercial advantages. In practice – and this is now well-established in the UK and the US – the courts will accept jurisdiction to determine whether a patent is truly essential, and whether (and on what terms) a licence needs to be taken. The ability of a competitor to seek a declaration of essentiality is potentially a potent weapon, and one which a purchaser of a patent portfolio cannot readily predict.

This is not to overlook the usual patent litigation tactics of seeking to declare the patent in suit invalid, and denying infringement. But if the patent is held both valid and infringed the FRAND issue then potentially limits the results of the patentee's deployment of the patent merely to receipt of a reasonable royalty.

Any attempt to get an interim injunction – the nuclear weapon in any patent dispute – will normally fail, provided the competitor has made it plain that it is willing to take a FRAND-based licence. The issues surrounding grant of a permanent injunction after trial can be different if there is any sign of equivocation by the competitor that it will not pay FRAND royalties.

Strategic implications for FRAND-free patents

The mobile platform wars are all about capturing and holding the critical centre ground of the functionality and features which consumers regard as essential. Patentees look to shutting out competitors or forcing them to be less competitive by imposing a royalty on them. Strategically acute purchasers of patent portfolios are therefore less focused on attacking their competitors on standards-based technologies (such as the so-called radio stack) because of the FRAND consequences. Instead, they are focussing on other strategic bottlenecks such as programming languages and key user interface elements. However, care needs to be taken here too, because the ability to create a bottleneck may indicate market dominance and open the patentee up to challenges on the basis of abuse of dominance.

Subject to abuse of dominance issues, FRAND-free patents give considerably greater leverage, especially in the telecoms sector. Any purchaser of these patents is under no obligation whatsoever to grant a licence to any competitors, whether or not those competitors are willing to take a licence. The strategic value of the patents lies in the fact that they can be deployed normally, that is to say, without the patentee having to modify its enforcement and litigation strategy to take account of possible FRAND-related defences.

Those patents should therefore be deployed first in getting interim injunctions against competitors. And, unless there are good reasons why particular FRAND-encumbered patents need to be asserted against a competitor (which will primarily be the outcome of infringement mapping considerations), litigation against competitors should ideally be limited to those patents.

The same applies to other non-patent IP rights that have the potential to create strategic bottlenecks such as the shape and design of smartphones and computer tablets. As such products become more and more consumer oriented, these types of design feature become more significant than the underlying technology. The company that is able to capture the market ends up directing consumer expectations about the look and feel of products. A clever design registration programme coupled with continual innovation will generate rights in the look and feel of smartphones and computer tablets which may be asserted against competitors with FRAND impunity. The same logic applies equally to the development of key software.

Strategic implications of FRAND-encumbered and FRAND-free patents being cross-asserted

The majority of battles between a patentee and a competitor will see both FRAND-free and FRAND-encumbered patents being asserted. As explained, an owner of FRAND-encumbered patents is at a disadvantage in litigation as compared to an owner of FRAND-free patents - no injunction and only a reasonable royalty versus an injunction and whatever terms can be extracted.

The question then arises whether a patentee can deploy FRAND-encumbered patents against a competitor in order to compel the competitor to cross-license the competitor's FRAND-free patents or other intellectual property rights, or at least to tolerate their ongoing infringement. This can also be a concern where there are allegations that patentees have not declared patents that should have been declared, and/or are deliberately concealing patents during the standard-setting process whilst simultaneously pushing for the technology to form part of the standard, and so those patents should be treated as being FRAND-based.

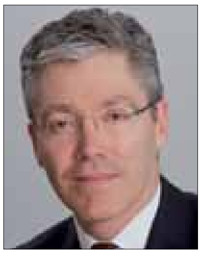
The commercial imperative to seek to do so is clear, and forms a central part of the current mobile platform wars. But this issue remains to be determined by the main courts around the world. The scope and extent of the FRAND licence defence will play a central role in this. Because FRAND obligations are contractual this will also give rise to arguments based on breach of contract and the equitable doctrine of promissory estoppel[5] – at least in common law countries. In the US there could be arguments based on breach of sections 1 and 2 of the Sherman Act (restrictions against restraint of trade and against monopolising trade) and Californian unfair competition laws, and in Europe arguments based on unfair competition.

Only one thing is certain, FRAND commitments – although often thought to be voluntary in character – are onerous. They have the potential to re-shape dramatically the outcome of the mobile platform wars and to determine the ultimate global victors.

Footnotes

1. The terms FRAND and RAND are generally interchangeable; FRAND seems to be preferred in Europe and RAND in the US.
2. http://ec.europa.eu/competition/antitrust/legislation/horizontal.html.
3. The European Commission filed proceedings against Qualcomm in 2007. In 2009, it closed the case revealing little information but said, "all complainants have now withdrawn or indicated their intention to withdraw their complaints". http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/09/516&format=HTML&aged=0&language=EN&guiLanguage=en
4. The European Commission filed a statement of objections to Rambus in 2007. In 2009, the case was settled. http://www.rambus.com/us/news/press_releases/2009/090611.html and http://www.ipeg.eu/blog/wp-content/uploads/Rambus-memo-091209.pdf
5. A promissory estoppel is a legal doctrine used in the UK, US and other common law legal systems around the world that stops a promisor from denying that particular statements, words or conduct (as the case may be) did not happen.

Authors




Jonathan Radcliffe is a partner in Mayer Brown's intellectual property group and Gillian Sproul is a partner in Mayer Brown's competition group. Both are based in London.