Competition law analysis of patent licensing arrangements — the particular case of 3G3P

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On 12 November 2002, the Commission’s Competition Directorate-General cleared agreements to set up and operate a world-wide mechanism to evaluate, certify and license essential patents for third generation (‘3G’) mobile communications systems. The Commission issued a positive administrative letter (‘comfort letter’) to the 3G Patent Platform Partnership (‘3G3P’) for the creation of five 3G technology-specific patent platforms that are intended to (1) determine and certify the essentiality of 3G patents; (2) streamline licensing administration; (3) apply a price cap mechanism aimed at moderating the effect of high cumulative royalties.

The 3G Patent Platform Partnership

In July 2000 the 3G Patent Platform Partnership (‘3G3P’) and its 18 partners (1) notified agreements which serve to establish a world-wide Patent Platform, which according to the Partners, was designed to provide a voluntary, cost effective mechanism for evaluating, certifying and licensing essential patents for third generation (‘3G’) mobile communication systems.

The 3G3P claimed that the notified agreements would have pro-competitive effects: 3G3P will be based on open and voluntary membership, it is intended to facilitate market entry and access to 3G technology by preventing the blocking of essential patents. According to the 3G3P, the Patent Platform was envisaged to substantially reduce the costs, uncertainties, and delays associated with the licensing of numerous essential patents for complex technologies. As an arrangement similar to a patent pool, 3G3P had to be reviewed using the criteria for assessing patent pools under the competition rules.

Competition analysis

Three of the most interesting aspects of the competition law scrutiny of the 3G3P are discussed below, and namely: (1) patent pools and their effects on competition; (2) ‘competing’ essential patents in the case of an umbrella standard, and (3) price setting considerations.

(1) Patent pools and their effects on competition

A patent pool is an arrangement by multiple owners of intellectual property rights (IPRs) to assign patent rights to each other or to grant licenses to third parties. By pooling patents together, it enhances licensing efficiency and thus access to IPRs. However, given that patent rights bestow a legal monopoly, it has to be ensured that patent holders will not use a patent pool to fix and raise prices, limit output and/or stifle further innovation. Therefore, competition scrutiny of patent pools and similar collective licensing arrangements has to ensure that trade relating to both the IPRs, and to the downstream product/services markets incorporating the IPRs, will remain unrestrained.

The 3G3P have argued that the 3G Patent Platform would merely facilitate transactions between patent holders and licensees. There are a number of features which distinguish it from a pure ‘patent pool’: (1) the Platform is open to both licensors and licensees, whereas a patent pool consists only of licensors; (2) the licensors retain their freedom to license outside the Platform (non-exclusivity) and they do not assign patent rights to the Platform; (3) the patents are not bundled, i.e. no real pooling of patents occurs: instead licensees have the opportunity to pick and choose between patents and the licensing is carried out on a bilateral basis; (4) there is no single licence between a given licensee and the Platform, whereas in a patent pool a licensee typically has one licence agreement with the patent pool; (5) the Parties to a licence can choose between the Platform’s Standard Licence and a negotiable individual licence.

Therefore the legal doctrine on patent pools was not directly applicable. However, most of the rules...
governing patent pools under competition law could be used as guidance.

The existing competition regulatory practice, both in the EU and in the US, has established a number of requirements to be met by a patent pool. A patent pool should include essential patents only; those should be licensed under non-discriminatory terms, there should be safeguards that commercially sensitive information will not be exchanged, and innovation should not be discouraged by the patent pool.

(2) ‘Competing’ essential patents

To obtain anti-trust clearance, patent pools must be limited to essential patents only. Essential patents are those patents that are indispensable for complying with a given technology standard. This means that those are patents that are complementary in order to comply with a given standard, and do not compete with each other. Thus, as a consequence, the patent holders are not competitors on the IPR, or the innovation, market, as their IPRs are complementary.

However, in the process of 3G standard-setting, the International Telecommunications Union (ITU) faced pressure from industry groups that favoured alternative 3G air interface technologies on the basis of historical choice of second generation mobile communications (2G) standards. Standards are developed by way of standard specifications and the process is ongoing. The ultimate goal is to achieve interoperability and interworking between the five different air interface technologies in the IMT-2000 and allow for global roaming and other compatible 3G services. Regarding the core fixed network, it is presumed that all players will converge towards all IP-based networks.

ITU could not reach consensus on a single global air interface standard, and adopted a compromise position which created a family of five standards, IMT-2000 (where ‘IMT’ stands for International Mobile Telecommunications, and 2000 is the year when unanimous approval was given to the main technical specifications for 3G systems). IMT-2000 is therefore the brand name for a 3G umbrella standard that encompasses five separate air interface technologies generally known as W-CDMA, CDMA2000, TD-CDMA, TDMA-EDGE and DECT.

In the process of examining 3G3P, the paramount issue was whether the five air interface technologies within the IMT-2000 umbrella standard were competing or complementary. Market players and industry experts could not give an unequivocal answer to this question, but it could be assumed that there would be at least a degree of competition between the five technologies. This was irrespective of the fact that in certain regions one of the five was considered the prevailing technology due to either the existing 2G legacy systems or through regulatory choice.

Given that there was deemed to be some potential or actual competition between the five 3G technologies within the IMT-2000 standard, the 3G3P in its original form appeared to amount to an agreement between potential or actual competitors that would pool together competing IPRs, agree on terms and conditions for licensing and royalty rates. This raised serious concerns regarding potential anti-competitive effects of the arrangements. The fact that only essential patents were to be included in the Platform would not in itself suffice to allay competition concerns, given that the 3G3P was to encompass ‘competing’ essential patents for the five potentially competing air interface technologies covered by the 3G umbrella standard, and not with IPRs for one single technology only.

In the course of 2001 and 2002 the notified agreements were amended several times and the final arrangements were notified to DG Competition in June 2002. The major modification was the creation of five separate air interface technology Platforms (incorporated as ‘PlatformCos’) instead of one single common Platform for all the five air interface 3G technologies, as was originally conceived. Thus, in order to avoid limiting possible competition between the five available air interface technologies, the parties modified their initial arrangements and established five separate patent platforms, one for each technology, instead of pooling all essential patents for all the five technologies in one single platform. A system of five separate technology-specific 3G patent platforms limited to essential patent was deemed unlikely to restrict competition and innovation with respect to 3G mobile technologies.

(3) Price-setting considerations

The 3G3P argued that the price setting mechanism introduced by means of a Standard Licence, which provides for a Standard Royalty rate, a Maximum Cumulative Royalty rate and a Cumulative Royalty rate will result in a more simplified procedure than the alternative of negotiating prices separately for each of the required patents. The Partners claimed that the result would be a reduction in delays, transaction costs and other uncertainties that are normally associated with the implementation of a new technology where numerous companies hold essential patents.
Patent holders and licensees also have the option to use a Standard Licence agreement as a default contract or they may enter into bilateral negotiations for ‘fair and reasonable’ consideration and terms. The Partners argued that this possibility should alleviate competition concerns on price fixing.

The 3G3P provides for a ‘price-cap’, which is not an absolute level, and it is not a single pre-set royalty rate, but a default five percent maximum, not minimum, cumulative royalty rate for potential licensees per product category. The individual royalty rate per patent will differ for each of the licensees, depending on their chosen patent portfolio on each of the product categories.

Thus the Partners argued that royalty ‘setting’ occurs only when a licensee hits the maximum royalty. It was submitted that the cumulative royalty rates would not be the same for a given Product Category because it was unlikely that licensees would reach the default maximum rate, especially if they themselves own essential patents. Therefore, the ‘standard’ royalty rates were argued to be in fact varying. Even if royalty rates were be identical for two licensees, the royalties payable to each licensor were likely to vary because they would be calculated on the ex-works sales price and volumes of sales per licence per country. Therefore it could be concluded that the 3G3P would rather ‘regulate’ prices by imposing a maximum overall price to be paid for an acquired patent portfolio, than fix prices (royalty rates) for different individual patents.

With the revised structure of the PlatformCos this price capping is now envisaged to take place per technology and price competition between the IPRs for the five 3G technologies in the five separate PlatformCos will be guaranteed. In addition, there are additional safeguards in the amended agreement that serve to reinforce the independence of each PlatformCo in the setting of royalty rates levels and the reference market value for the calculation of royalties. In any case, because only essential patents are included per PlatformCo, the pricing arrangements governing royalty rates per PlatformCo are not agreements between competitors, thus no price-fixing concerns can arise therefrom.

Even though price competition is unlikely to be restricted both within and between PlatformCos, a further important issue to consider is the extent to which price competition is the major factor in deciding to choose a given technology of the IMT-2000 family. It has been argued by the Partners that factors other than price would be vital and in particular that the choice of 2G air interface technology would pre-determine the choice of 3G technology to a significant extent. For new entrants, of course, this will not be a valid argument. It has to be taken into account however, that the ultimate choice of technology is made by the mobile operators which will run 3G networks and which would procure certain equipment depending on their choice. In the EU, there are not many true ‘new entrants’ as most of the operators that have won 3G licences, even new players, are established operators in their national markets. Operators’ familiarity with certain technology and installed base would be of serious consideration when choosing the 3G technology.

Conclusion

3G mobile technologies are expected to bring about a plethora of multimedia and high-speed voice and data services to mobile phone users. In assessing the 3G3P patent licensing arrangements, the Commission’s Competition Directorate General had to verify that there is no limitation of competition between different 3G technologies, that the arrangements are limited to essential patents only, that there is no foreclosure of competition in related or downstream markets or anti-competitive tying of patents and that the arrangements do not discourage further R&D and innovation.

The scope of the administrative comfort which has been granted is however limited to the arrangements covered by the notified agreements, and does not extend to any other industry initiatives or arrangements, such as decisions and/or practices of 3G standard setting bodies and industry working groups. Given the novelty of the 3G technologies and the unpredictability in the development of related 3G downstream product markets, the clearance is limited to the arrangements as those have been notified and taking into account the current 3G3P membership.