Microsoft

Report on the International Patent System
WIPO Document SCP/12/3

Comments by Microsoft Corporation

WIPO document SCP/12/3 contains the Report on the International Patent System prepared by the WIPO Secretariat. The Summary of the Chair of the WIPO Standing Committee on the Law of Patents of its twelfth session (contained in WIPO Document SCP/12/4 Rev.) states that document SCP/12/3 would be open for written comments to the WIPO Secretariat until the end of October 2008. This document contains the comments of Microsoft on that document.

The Report's discussion of the rationale for patents and its survey of relevant literature is, in general, balanced and appropriate. However, several instances in which we believe that statements in the Report could be clarified, as we note in the five sections that follow.

I. Economic Rationale for Patents

The Report's discussion of the rationale for patents and its survey of relevant literature is, in general, balanced and appropriate. However, several instances in which we believe that statements in the Report could be clarified:

Paragraph 3: This paragraph states that "Inconclusive empirical evidence on the role of the patent system to encourage research and development (R&D) and technology transfer makes it difficult to draw any clear-cut conclusions about the effectiveness of the patent system for economic development." While this is an accurate statement as far as it goes, making such a statement is highly dependent on assumptions that are made and the context in which the statement is made. In order to avoid misinterpretation we would suggest adding a sentence noting that "However, particularly with respect to technology transfer *via* foreign direct investment ("FDI") and bilateral trade, the available empirical evidence suggests that strong IP systems can have a significantly positive impact on trade flows and FDI benefitting developing countries." For the same reason, we would suggest adding a supporting footnote that cross-references paragraphs 45 and 46 of the Report. Again, the existing statement in paragraph 3 is accurate as far as it goes, but we believe that additional context is necessary to provide context and avoid its misapplication and misinterpretation.

II. Patents and Standards

In general, the discussion of standards and intellectual property issues related to standards in the paper is thorough and balanced. We particularly welcome the recognition that intellectual property plays an important role in incentivizing the development of technologies that are ultimately incorporated in standards, and that a blanket requirement by a standards organization that technologies always be contributed royalty-free could potentially disincentivize future technological development in areas subject to standardization. Rather, as the paper notes, standards bodies can choose from a variety of

potential licensing regimes, depending upon the technologies at issue, the objects of standardization, and the preferences of participants. We support this concept of choice – within reasonable competition law limits, participants in standards bodies should be free to agree on the IPR rules that are best suited for their endeavor.

Similarly, as the paper notes, standards policies should seek to drive innovation and dynamic efficiency. Simply reducing IPR costs to implementers may have unintended side effects – driving companies from participating in standards bodies or researching future technologies that are likely to be standardized. Moreover, it is not at all clear that any savings would be passed on to consumers or businesses, assuming that a product embodying a standard is priced in a manner that reflects equilibrium of supply and demand. Rather, it would simply shift rents from the IPR owner to the device manufacturer.

We also appreciate the paper's recognition that standards implementation is generally voluntary and market-driven. As with other aspects of competition, a standard should generally succeed or fail on its own terms – government mandates would push technology in a particular direction, possibly foreclosing product or service possibilities for consumers going forward.

Importantly, the paper makes clear that open source is different than open standards, and that open standards can be implemented through open source, proprietary or mixed source offerings. We agree with the paper's observations that open sources licenses are based on IPRs and that whether software is open or proprietary is only one factor for governments and users to consider – other factors such as total cost of ownership, technological maturity, indemnification, and product support should also be considered.

We do have some comments about specific aspects of this section of the paper. In particular:

- ***Paragraph 111*** indicates that standards are specifications that enable "the replacement of one part of a given product with another part, or the assembly of such parts." While this may be true of standards in some areas, we would note that standards related to information and communications technologies (ICTs) seek to promote the exchange of data, rather than cloning or substitutability. Through exchange and mutual use of data, ICT standards enable different products to work together while still allowing differentiation that facilitates competition and innovation.

- ***Paragraphs 111 and 112*** suggest that standards "create" or "ensure" interoperability. Standards often play an important role in the development of interoperable technologies. However, standards are no guarantee of interoperability. A standard may be ambiguous in places, or have gaps, leading to different choices by implementers. The standard may offer implementers multiple choices about how to implement some elements. There could be bugs in some implementations. Implementers might take different technological approaches to implementing a particular element, causing subtle (or not so subtle) conflicts between the different implementations. Or they may choose to implement different parts of a standard

based on different views as to what is going to be appropriate in the marketplace, leading to interoperability gaps between implementing products. After all, there is often asynchronous evolution of standards and the products that implement them. The point here is not that standards are not useful in achieving interoperability – they are. But they should not be seen as a panacea. And other means of achieving interoperability, such as plugfests and vendors working together, should not be discounted.

- ***Paragraph 113*** discusses international, regional, and national standards bodies, as well as industry consortia. We would note that whether a standard is international increasingly depends not just on which body promulgates it, but how broadly it is adopted.

- ***Paragraph 120*** discusses potential methods to resolve conflicts around IPRs and standards. While we welcome voluntary patent searches by participants in standards bodies are great, such searches are expensive. Thus, a requirement on participants to conduct them might drive down participation in standards bodies. Also, as the technical scope of a specification often changes over the course of its development, it is unclear just exactly when a patent search should be run. Furthermore, we have concerns over the application of competition law to alleged violations of standards bodies IPR policies. Although legal regimes vary worldwide, in general a failure to comply with a RAND commitment, or a standards body's IPR policy, is actionable under contract law. We think contract remedies are sufficient, and that the threat of treble damages (common in antitrust statutes) is not needed to deter conduct that, while painful, occurs rarely (especially compared to the number of standards issues each year) and is often a matter of commercial dispute between entities with different economic interests in the standard.

III. Public-Private Collaboration

We think that the paper's discussion of the role of patents in facilitating public private collaboration provides a good summary of the key issues in this area. We support legislation allowing research institutions to patent inventions resulting from government funding and license them to businesses. Such a legal regime helps spur economic development in the technology sector by creating a system that facilitates commercialization of government funded research, leading to new products and services for consumers and businesses and resulting economic growth. Without this basic legal foundation permitting patenting of inventions arising out of government-funded research, commercialization of that research will lag. For example, in the U.S., prior to passage of the Bayh-Dole Act, each government agency set its own policy regarding how to protect and license inventions resulting from government funding. Most chose to keep title to the invention themselves, and license the results to all comers on a non-exclusive basis. The net result was that few patents were licensed, because (a) the agencies did not have dedicated licensing offices and (b) companies were reluctant to take non-exclusive licenses, as nothing would prevent their competitors from copying any successful commercialization of the technology.

Thus, a legal regime that permits patenting by recipients is a necessary first step to drive commercialization and resulting economic development. However, it is only a first step. Once recipients have the right to patent their inventions, they should be encouraged to do so. Part of this incentive, of course, comes from the potential royalties that can be obtained by licensing the technology. Other important incentives include (a) a requirement to report regularly to the government agency on inventions developed as a result of its funding, so that the recipient is pushed to track and evaluate the licensing potential of its inventions, and (b) government devotion of economic development funding to promoting the commercialization government-funded research via various means (*e.g.,* seminars, innovation tours, technology-matching marketplaces).

Similarly, for commercialization to success, universities and research institutions need IP policies that enable effective patenting practices, including determining which technologies make sense to patent, as well as technology transfer offices to license out patented inventions. And, of course, commercialization of government-funded inventions should be done in a manner consistent with academic freedom and publication.

Finally, trust between academic institutions and industry is critical to commercialization of government-funded research. Some academic institutions may see themselves as more devoted to pure research. In turn, industry may not have good contacts with universities and fear that information about their commercial plans may become public if they license in key technologies. Creating trust through (a) positive examples of collaboration and (b) the development of systems that encourage industry-academia cooperation while preserving confidentiality is key to ensuring that this innovation system operates effectively.

In the U.S., which enacted the Bayh-Dole Act in 1980, the economic impact has been significant. In 1980, the federal government owned around 28,000 patents, fewer than 5% of which were licensed to industry for commercialization. By contrast, universities have created over 3,600 new products since 1980 – over one per day between 1998 and 2005. And, in 2005, universities created over 628 spin-off companies, or 1.7 per day. In sum, today over 200 U.S. universities are engaged in technology transfer, adding more than $21 billion each year to the economy.

It must be emphasized that legislation and agreements that provide for technology transfer from universities and the private sector is not just a boon for universities or the private sector – it is good public policy. As noted above, prior to the enactment of the Bayh-Dole Act in the United States, many government-funded inventions would lie fallow if they were not protected or could not be effectively transferred or licensed to companies that wanted to bring them to market. When such effective transfer and licensing can take place, inventions are used resulting in products and services that come to market resulting in the creation of jobs, wealth, and potential tax revenues for the public benefit. More importantly, however, such effective transfer and licensing of intellectual property means that the people in the country will enjoy the products and services that started with the early-stage investment in research by their government.

IV. Work-Sharing

Paragraph 209 – We believe that in the discussion of the duplication of procedures and efforts relating to application, search, and examination, it would be appropriate to provide additional discussion of the potential for both procedural/legal improvements, as well as discussion of the potential for Information Technology to leverage or create operational efficiencies. One common theme running through many of the proposals to leverage cross-office collaboration is to capture the power of information technology. Indeed, one set of proposals involve creation of something akin to a "virtual patent office". This would be an environment that provides a universal set of search tools to allow any patent examiner to locate technical information from around the world; an environment where an automated translation tools allow examiners to read and understand any publication, regardless of language of origin; an environment where examiners are networked with other examiners from around the world in a collaborative workspace. This type of IT-enabled "virtual" environment was proposed at the 2007 Trilateral Conference in Washington, D.C. and has been included in the "New Intellectual Property Policy for Pro-Innovation" of the Government of Japan.

V. Challenges in the Fields of Emerging Technologies

Paragraphs 252-253: In that it merely relates arguments that have been made by others, the discussion in paragraphs 252-253 is largely accurate. However, because none of the responsive arguments are summarized, it is clearly not a balanced or complete discussion of the issue. Additionally, some of the arguments are ones that are not well supported, making the failure to include any critical commentary or summary of countervailing arguments particularly troubling.

For example, in paragraph 252, the Report vaguely cites "the special characteristics of software innovation." To our knowledge, no persuasive argument has been developed that either defines what these "special" characteristics are or demonstrates that they apply particularly or exclusively to software innovation. (At a minimum, many of the "special" characteristics that critics of software patentability typically rely on would apply with greater or equal force to digital engineering advances relating to computer and consumer electronics hardware.) In sum, we feel that it is inappropriate to cite such "special characteristics" in a manner that leads the reader to assume that such characteristics have been proven.

Also in paragraph 252, the Report states that "some people consider that patent protection of software would inhibit competition." By definition, the right to exclude others that is inherent in *all* patents includes the right to exclude *competitors*. Thus, *all* patents potentially inhibit the ability of third parties to compete with the patent owner by using the patented technology without the permission of the patent owner.

The subsequent references to "network effects" and interoperability – which appears intended to relate to the competitive-impact argument – is relevant to only a subset of software and, we would argue, almost completely irrelevant to the issue of patentability. "Network effects" is merely one of a number

of theoretical descriptions of situations in which a marginal increase in deployment may either decrease marginal cost or produce a positive externality. These situations are, in effect, what used to be described in the field of antitrust economics as "natural monopolies," where economies of scale or positive externalities may lead to a very small number of competitors (or even a single monopolist) in a particular market. Thus, the arguments relating to "network effects" and the potential for "lock-in" most commonly appear as an argument for increased antitrust scrutiny or, in the patent field, as an argument that patent protection is unnecessary to provide incentives to innovate in particular areas. Even if such arguments are accepted, however, it is unclear that they have any clear bearing on the competitive effects of patenting, unless one also assumes that only dominant firms are able to obtain patents in the relevant field of technology (which is emphatically not the case in the area of software). While it is true that patents held by the dominant firm may enhance its market power, other patents held by would-be competitors will constrain the options available to a dominant firm, tending to its diminish market power. Thus, the competitive effect of patentability in the field may either increase or decrease the contestability of the market.

In sum, the "natural monopoly" and "network effects" arguments are neither unique to software nor particularly relevant to the question of patentability. If these are to be included, we would strongly urge some further explanation of their relevance to patentability and the inclusion of responsive arguments that provide an opposing perspective. Absent an opposing perspective being provided, we would view the discussion in paragraphs 252-253 as severely lacking balance, which is noticeably inconsistent with the balanced approach that has been taken in the rest of the Report.