www.jusletter-it.eu

Clara-Ann Gordon

Patent Protection and Trends in Cloud Computing

Many businesses rely on cloud service providers more and more. Not all of them are aware of the resulting patent law related questions. Following Swiss law, a client using allegedly violating cloud technology can be part of an indirect patent violation – this simply based on him using the cloud. Alongside the continually growing significance of patents in the area of cloud technology, the number of patent exploiters – so-called patent trolls – increases. The article monitors these trends and describes how cloud service providers can protect their clients against such patent claims. (ah)

Category: Articles
Region: Switzerland
Field of law: Patent Law; Cloud-Computing

Citation: Clara-Ann Gordon, Patent Protection and Trends in Cloud Computing, in: Jusletter IT 21 September 2017

Inhaltsübersicht

1. Cloud Computing Success

[Rz 1] Cloud computing describes a type of Internet-based computing that provides access to shared computer processing resources and other hosted services. Cloud users store and process data to run diverse sets of software applications on shared computing systems.

[Rz 2] Cloud computing can benefit companies in a number of ways, depending upon their size, scale, sector and strategic goals: lower capital exposure, easier maintenance and upgrades, greater flexibility and mobility, continuity of business and improved IT security. Companies also start to use cloud applications to support their business, because they can operate and innovate more freely in the cloud.

[Rz 3] Accordingly many cloud service providers have popped on the market over the past years, but the public cloud leaders continue to be Amazon Web Services (AWS), Microsoft Azure, IBM and Google.

2. Massive Rise in Patents for Cloud Computing Technology

[Rz 4] Companies increasingly compete on innovative technologies that e.g. enable the efficient scaling up of a virtual machine, the quick deployment of data or the rapid recovery of applications. Such innovative technologies are exceedingly patented to allow patent owners to secure future technological areas. According to IPLytics' report on Patent Transaction Trends in Cloud Computing[1] the three strongest patent holders in this field are IBM, Microsoft and Google which altogether filed more than 5'000 patent families that have been granted in the past years.

[Rz 5] According to the European Patent Office (EPO)[2] a record number of 95'940 EU patents was granted and published in 2016 which amounts to a 40.2% increase. The five countries of origin with the largest numbers of EU patent applications were the US, Germany, Japan, France and Switzerland whereby the latter had again topped the ranking in 2016, with 892 applications per million inhabitants. The fastest growing area in the technology field is patent applications for computer technology with a 2.9% increase.

[Rz 6] Also in Switzerland patents for computer technology are granted, however it is more customary to obtain an international or EU patent rather than filing for a Swiss national patent. Swiss companies usually only file a Swiss patent in this field in order to obtain the priority date, but the EU patent is of more importance. In Switzerland there are no official statistics on the number of

1 See http://www.iplytics.com/general/patent-transaction-trends-in-cloud-computing/ (all websites last visited on 3 August 2017).

2 See https://www.epo.org/news-issues/news/2017/20170307.html.

granted computer technology patents, but one can assume that they show a similar tendency of increasing numbers as the EU patents granted in this field.

3. Growing Success Caught Attention of Patent Trolls

[Rz 7] Unfortunately, the increase in the grant of cloud technology patents has been watched closely by so-called patent assertion entities (PAE) or non-practicing entities (NPE) – also called condescendingly patent trolls.

[Rz 8] The business model of patent trolls is that they have no products of their own, no operating costs and are neither an inventor nor conduct research & development, but are streamlined to attack companies on the grounds of patent infringement. They stockpile patents of a typically vague or broad nature for the sole purpose of suing operating companies on the grounds of patent infringement in order to obtain license fees or damages.

[Rz 9] The often broad nature of cloud provider's software patents makes them an easy target for trolls, compared to more explicitly defined patents for products in industries as pharmaceuticals.

[Rz 10] PAE and NPE are gathering cloud computing patents at a rapid pace. Patent infringement is increasingly easier to detect in the cloud, because detailed documentation and APIs are readily available and as open source software powers a lot of the cloud, its code can be read and analyzed by anyone, making infringement easier to detect.

[Rz 11] In addition, PAE and NPE are frequently more sophisticated and place a much higher value on intellectual property (IP) assets than traditional IP owners do. They have raised the stakes for all companies with IP assets. Companies that want to maintain their freedom to operate and innovate need to strengthen their use of IP as a strategic weapon against competitors and as a shield against attack.

4. Cloud Customers as Targets for Patent Trolls

[Rz 12] As the economic importance of the cloud increases, more and more entities choose to go in the cloud. It must be noted that under Swiss law and many other applicable laws, a customer using an allegedly infringing cloud technology can participate in a contributory patent infringement by its mere use – by just being in the cloud.

[Rz 13] Since customers do not have the same level of expertise in cloud technology as the cloud providers, they are less prepared to fight a patent or IP battle. A customer has little incentive to solve an IP issue for its competitors, as opposed to a cloud provider who will want to avoid an IP threat becoming an issue for many of its customers. For all these reasons customers in the cloud are interesting targets for PAE and NPE.

5. Many Companies Have no IP Defense Strategy

[Rz 14] While enterprises generally seem to be aware of the importance of security or privacy in their cloud, IP remains an overlooked area. Enterprises often do not have an IP strategy to secure their next innovations, nor do they have clarity on their litigation strategy, especially in a global context when they are attacked by PAE and NPE.

[Rz 15] According to the Boston Consulting Group, patent trolling is on the increase, which has noted a 22% rise in cloud-based IP lawsuits over the last five years in the US.

[Rz 16] Moreover, PWC's patent litigation report 2016[3] states that median damages awards in patent litigation are on the rise which means that companies are feeling more pressure than ever to get their litigation strategy right. Even more worrying is that the NPE median damages award has grown to almost three times the median for practicing entities in the most current five-year period.

[Rz 17] Under Swiss law patent trolling is per se not illegal, since a patent does not imply any obligation to make, use or sell the invention. A patent owner is therefore generally permitted to exercise his rights, unless such amounts to an abusive conduct.

[Rz 18] Unlike in the US, Switzerland and many other European countries foresee the concepts of the grant of compulsory licenses, licenses in the interest of the public, dependent licenses or actions for the grant of licenses. These concepts are likely to help mitigate attacks from PAE and NPE, because the courts will not automatically award compensation for damages. This can be compared with the «*four factors test*» which a US court will apply. In the affirmative it will refrain from imposing an injunction and order the grant of a license.

[Rz 19] Moreover, Swiss and many European laws do not foresee the concept of the US punitive damages – rather the actual scope and amount of damage has to be proven in court. This is also dissuasive for PAE and NPE.

[Rz 20] However, given the facts that the European countries (including Switzerland) are very active in filing and obtaining patents for cloud technology and also in view of the introduction of the unitary patent and Unified Patent Court which will allow for EU-wide injunctive relief, companies in Switzerland and Europe are advised to be alert and prepare their patent protection defense.

6. Different Approaches for IP Indemnification

[Rz 21] It is noteworthy to take a look at the customer agreements of the major stakeholders such as AWS, Google and Microsoft who hold numerous cloud technology patents. They offer very different approaches for IP indemnification in the cloud.

[Rz 22] As regards AWS (Amazon)[4], it does not specifically protect its customers from patent or IP lawsuits in its AWS Customer Agreement. It even requires a patent non-assert from its customers (see section 8.5).

[Rz 23] Google explicitly indemnifies its customers[5] in section 14.2 of its Google Cloud Platform Terms of Service, if the use of Google's technology infringes third party patents. It however explicitly excludes indemnification for open source software.

[Rz 24] Microsoft provides for a new and interesting concept in this context: uncapped indemnification for its Azure cloud services, including open source incorporated in its services, and 10'000 patents that Microsoft is sharing with its consuming customers. The Azure IP advantage program

3 See http://www.pwc.com/us/en/forensic-services/publications/assets/2016-pwc-patent-litigation-study.pdf.

4 See https://aws.amazon.com/de/agreement/.

5 See https://console.cloud.google.com/tos?id=cloud.

offers its customers the ability to pick from 10'000 Microsoft patents to help defend against an IP lawsuit and to obtain a «springing license», meaning that the customer becomes fully licensed to one or more Microsoft patents, if and when Microsoft were to transfer such patents to a non-practicing entity (NPE). The nature of this right is not quite clear under Swiss law. It might amount to the grant of a kind of right to sue.

7. Global Nature of the Cloud and Enforcement

[Rz 25] Cloud service providers usually build several data centres around the world, and then use these facilities to provide services to customers from different countries. The globalization benefits of cloud computing, together with other benefits such as virtualization and scalability, enabled fast growth and adaption of the cloud computing technology by various organizations.

[Rz 26] Since there are no all encompassing international or global patents (a US filed patent application is only valid in the USA and an EU patent in Europe), PAE and NPE cannot just file their claims in one country, but need to file in several countries where the servers are located or at least enforce their obtained judgments in those countries. Also forum shopping is a frequently used term in this context: i.e. litigants file their law suits in the court thought most likely to provide a favorable judgment.

[Rz 27] Switzerland is a key jurisdiction for enforcement, since it is a party to many international IP treaties (e.g. Patent Cooperation Treaty[6], European Patent Convention[7], Patent Law Treaty[8], etc.). Recognition of foreign arbitral awards does usually not trigger any particular issues in Switzerland, which is widely recognized as an arbitration friendly forum. The Swiss Federal Supreme Court adopts a very narrow interpretation of public policy and refrains from re-examining the merits of foreign arbitral awards. But also the Swiss Federal Patent Court which has exclusive jurisdiction over patent infringement and invalidity actions is known for its expedite procedures. Another benefit is that the parties can agree on conducting the proceedings in English.

[Rz 28] Eventually, the soon to be implemented unitary patent concept with a single court (the Unified Patent Court) and uniform protection which means that revocation as well as infringement proceedings are to be decided for the unitary patent as a whole rather than for each country individually, will likely also lead to increased patent litigation in Europe.

Clara-Ann Gordon, Attorney-at-law, LL.M., Partner in the law firm Niederer Kraft & Frey AG, Zurich.

This article is also available in German language: Clara-Ann Gordon, Patentschutz und zukünftige Trends beim Cloud Computing, in: Jusletter 7. August 2017.

6 http://www.wipo.int/export/sites/www/pct/en/texts/pdf/pct.pdf.

7 http://documents.epo.org/projects/babylon/eponet.nsf/0/F9FD0B02F9D1A6B4C1258003004DF610/$File/EPC_16th_edition_2016_en.pdf.

8 Classified Compilation (CC) 0.232.149.514 (https://www.admin.ch/opc/de/classified-compilation/19780344/index.html, text available in German only).