Challenges for IP Managers in the Software industry

Abstract

Nowadays Software is omnipresent in our society. Almost every industry sector is using software either as a product on its own or at least as an embedded component or as a basis for providing service. Protecting the Intellectual Property (IP) that is embedded in the different types of software innovation is a huge challenge. Various legal protection means of different strength are available to the IP owner. It is important to select the appropriate protection means for the respective types of innovation. Moreover, especially with regards to software protection IP regimes tend to vary significantly over various jurisdictions. This article discusses some IP regimes that appear to be important for protecting software innovations. Further, economic aspects and IP Management risks that are associated with Open Source Software and Standard Organizations are discussed. The aspect of Standards is briefly summarized below.

Standards

Similar to OSS, the use of standards and the participation in standard organizations, such as IETF, W3C, IEEE or API, promises big advantages for the software industry. However, there are also associated risks on the IP side.

IP Provisions and License Types

The licensing terms of a Standards Body determine the degree of IPR surrender for members. In general, essential claims owned by a party or its affiliates are given to the standards body if the party becomes a member. Essential claims are necessarily infringed when implementing the normative specification of the standard. Some policies may also include optional parts of the standard.

To minimize the IP risks associated with becoming a member of a standards body a company should carefully check how the IP portfolio would be affected. Especially if valuable IP needs to be surrendered a thorough analysis of the business value coming through the membership must be done beforehand. This should also take into account the current threat/litigation landscape of the firm.

From an IP perspective a software company can pursue different competitive standards strategies.
Standards Compliance
- Products that comply with standards

- Standards compliance significantly reduces barriers to adoption; compliant products simplify co-innovation

Standards Leadership
- Influencing Standards Specifications (interfaces, semantics)
- Standards leadership is co-innovation and enables co-innovation; reputation as a leader promotes adoption

Feature Monopolies
- Protect features as differentiators from the standard
- Use superior features to establish de facto standards as a quasi monopoly in your segment

Conclusion and Further Readings

IP Managers in the software industry face challenges being different to some extent from those in other industries. For example, software is a complex, often distributed technology. This makes it difficult to claim. At the same time software is an abstract technology which often results in vague claims using vague terms. As a result it becomes very difficult to interpret the scope of protection of IP rights. This poor notice function of software related patents and a huge number of software patents makes it almost impossible to get reliable product clearance for own innovation at reasonable cost. This may be one reason why software patents are litigated more often than patents in more discrete industries. A highly recommendable discussion of the specifics of patent protection in the software industry can be found in "Patent Failure by James Bessen & Michael J. Meurer , Princeton University Press, 2008". On the other hand copyright is more precise and has a better notice function. The risk of inadvertent infringement is much less with regards to copyrights than with regards to patents.

Further, IP Managers in the software industry are facing the threat of patent trolls more severely than their colleagues in other industries. It is very difficult for a software company to defend against trolls. Some options are discussed in "Taking on the trolls by Peter Bittner and Bent Lundsager, IAM issue 32, October/November 2008".

Last but not least the tradeoff between OSS related efficiency gains versus the IP related risks associated with copyleft-licences require IP Managers to perform thorough analyses before using OSS in any proprietary software product. An interesting discussion about the co-existence of OSS and proprietary software can be found in "Open Source Software: Free Provision of Complex Public Goods by James Bessen, Boston University School of Law and Research on Innovation, July 2005". Similar questions need to be answered by IP Managers when deciding about a membership in standard organizations.

It is important for any player in the software industry to have a holistic view on IP management which includes the various mechanisms to protect software innovations but also mitigates the risks that may arise from the use of Open Source Software or Standards.