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Patent strategies for financial institutions

Unlike in other industries, financial institutions have not adopted a common approach to patenting. **Heather McCann** and **Matt Lawman**, partners in EIP, explore the issues determining which strategy, or strategies, to adopt, suggest that there is no one-size-fits-all patent strategy that suits all financial institutions and propose one way to address the differences of approach towards business method patenting in US and Europe.

Before delving into the main subject of this paper a general comment on IP strategy is timely. For many 2010 was the year in which social networking and blogging entered the commercial mainstream. Commercial topics such as IP strategy are being aired and debated openly for the first time. For example, there are now a number of groups on LinkedIn[1] that focus on IP strategy, and some interesting threads have emerged, addressing fundamental questions such as "what is IP strategy?" There is also a growth in companies which offer IP strategy consulting services and there is now even a new class of advisor – a so-called IP strategist – whose services can be called upon to develop an IP strategy for you. Thus far, much of the IP strategy talk has been general and high level, along the lines of 'an IP strategy is an inextricable part of a business strategy'. However, like an onion, IP strategy has many layers – the outer skin being at the business level while the core conceals important strategies such as how to write a business method patent application for multiple jurisdictions. This latter conundrum is 'at the core' of this article – and, like an onion, it has a tendency to reduce grown IP professionals to tears.

Unlike in other mature industries, the players in the financial industry do not appear to apply a consistent approach to patenting. While some large financial institutions now have many hundreds of patent rights, other institutions of similar size have only a handful. The difference in approach has been marked between US financial institutions and non-US institutions. However, there are significant differences even between US financial institutions of similar size; some favouring a US-only patenting strategy[2] while others are filing a significant number of foreign and international applications[3].

In considering how we might arrive at "a patent strategy for a financial institution", it is important to consider:

- Who the players are;
- How patents are used and enforced now;
- How patents may be used and enforced in future; and
- The legal limitations on what can be patented now and in the future.

The players can be classified as financial institutions and card schemes (banks/insurers, Amex/Visa/MasterCard), independent software vendors (ISV), online payment and brokering services "OPBS" (eBay, PayPal, Google), trading exchanges, and IT systems houses that specialise in IT solutions for the financial industry.

Historically, none of the significant players in the financial industry had many patents before the late 1990s. We suggest the subsequent acceleration in patenting is down to two key factors. First, the notorious *State Street Bank* case[4] in 1998 held that anything that can provide a "…useful, concrete and tangible result" can be patented. US banks in particular would have woken up to this: business processes can be patented (at least in the US), and some of the resulting patents are quite extraordinary[5], at least to non-US attorneys. The second reason is that financial institutions' use of technology has greatly accelerated, and continues to do so, now encompassing a plethora of technologies spanning electronic trading, transaction systems, iPhone apps, not to mention business methods. Some larger financial institutions are now also some of the largest investors in IT R&D in the world[6].

After the State Street Bank case (*supra*), commentators predicted that the financial industry would follow other industries into a patent arms race. For many traditional financial institutions this hasn't been the case. The most recent high-profile patent lawsuits in the US, which involve the large financial institutions, have been launched by non-practising entities (NPE), or Trolls, against dozens of financial institutions. For example, lawsuits filed by Data Treasury[7] (cheque imaging) and Ronald Katz[8] (automated call centre technology) have challenged the financial institutions, and they have paid out hundreds of millions of dollars between them to settle the cases[9]. However, this won't have influenced the financial institutions' patenting behaviour. One reason for having patents, as discussed below, is to discourage attacks by aggressors – who fear reprisals in kind if they issue suit – but you can't improve your position against a NPE by filing patents since its only activity is litigation. Other patent lawsuits in the US have been between ISVs and exchanges, not directly involving the larger financial institutions. Outside of the US, patent lawsuits have been few. This is most likely because of the restrictions on what can be patented.

The dearth of internecine patent disputes involving the large financial institutions, even in the US, may be why some do not see patenting as a key strategic activity. Why then do other large financial institutions have relatively large patent portfolios?

One reason for developing a patent portfolio is "market access", eg the freedom to operate in chosen fields and markets. A considered business plan should include a risk assessment of third party patents potentially barring market access.

Those larger financial institutions developing portfolios may be doing so to mitigate the risk. This risk can be mitigated in several ways, possibly the most meaningful being building up your own portfolio to deter aggression or negotiate market access with other patentees. Having a portfolio buys a player into the game, while the strength of portfolio may determine whether you can strike cross-licensing deals for free or whether you pay (or receive) balancing payments. Without a portfolio, the worst case scenario is that you don't get to play and become barred from accessing certain markets entirely.

Financial institutions that are building significant patent portfolios are doing so based on speculation that the financial patent landscape is ripe for change, with a future in which patent wrangles are far more prevalent. In banking terms, patent portfolios are a 'hedge' against

what may happen in the future: something that financial institutions should understand very well.

Unlike the large financial institutions, ISVs[10] do not have the historical baggage of the banks: they are relatively new players who see patents as a competitive opportunity, particularly in the US, which has evolved a liberal approach towards software and business method patents.

With the unabated growth of the internet, online payment and brokering services have emerged[11], which utilise innovative technical solutions. Since they are internet babies, they are similarly not hampered by a legacy approach to patents, and, like the ISVs, have embraced the developments in US patent law by developing healthy patent portfolios.

Unsurprisingly, perhaps, there has been patent lawsuit activity involving ISVs and OPBS, matching their active and aggressive approach to patenting and the greater importance of exclusivity.

Looking ahead, while no-one expects to see Citibank launching patent lawsuits against Bank of America, the pressures to become more aggressive with patents are evident. The established financial institutions are seeing such pressures emerge in multiple areas of operation. For example:

- Retail banking is particularly competitive and has relied heavily on branding. However, as customers increasingly perceive retail banks to be offering the same products, the marketers are straining to identify clear differentiators, which are rare, expensive to develop and difficult to sustain. Use of patents to sustain differentiation is enticing, and some banks are now marking advertising literature with patent notices[12].

  The retail banks are also potentially under threat from OPBS, which provide person-person transfers: the threat would be larger if the OPBS model served corporations too. Also, social networking sites gather information about people that the banks could only dream of having access to. Banks are under huge pressure to sell only appropriate products, and it is hard enough to match people to products carefully when the people are your own customers: targeting non-customers is exceptionally difficult. With access to boundless information about a person's socio-economic status, an established global customer base and significant financial backing, a social networking site with banking aspirations could in future offer a truly disruptive threat to traditional retail banking services.
- Markets and trading is a modern, specialist and valuable banking area, involving such things as quantitative analytics, complex investment strategies and structured equity products, which has been laid bare over the last few years. It takes significant investment and brain-power to lead in this field, by creating strategies that outperform the competition. Historically, this area has relied upon secrecy to maintain its competitive edge. However, regulation now demands transparency: customers must understand what they are investing in. Once a trading strategy is disclosed to satisfy regulatory requirements, it can be reproduced by fast-followers who have not invested in R&D. Patents may now be the only way to sustain competitive advantage in this area.
- Core IT: financial institutions are some of the largest investors in IT, and much of the investment goes to large or specialist IT systems houses such as IBM, EDS and Accenture. These operators gain access to invaluable know-how through developing IT infrastructures, which push the bounds of processing speed, data throughput and security, beyond the requirements of any other industry. The knowledge acquired from financial institutions can benefit the systems houses immensely in other projects. The savvier financial institutions protect their IP and can obtain leverage over the systems houses, for example, a systems house may fund non-recurring project costs, grant a discount, agree to kick-back revenue, or agree a time-to-market advantage, in exchange for a licence to use the know-how/IP with other clients.

The jurisdiction-specific nature of patents is a crucial consideration for any risk assessment and patent strategy, and the laws that determine whether or not an invention can be patented vary greatly between the US and Europe[13]. Other countries tend to fall somewhere in between the US and European approaches[14]: European law is more restrictive when it comes to granting patents for software and business-related innovation, the key requirement being that there is a "technical" solution to a "technical" problem. This means that many algorithms that process intangible data such as trades, whether computerised or not, are unlikely to give rise at present to a granted patent in Europe. The upshot is that a monopoly is unlikely to be granted in Europe for pure algorithm innovation, which would include trading strategies and the like.

A European financial institution that adopts a patent strategy based on European law alone might be in for a shock, potentially facing patent lawsuits upon launching a service in the US and having nothing with which to do patent deals. European institutions with US or global aspirations must have an equally broad patent strategy perspective as their US counterparts.

The European Union has 27 member states, with a population of 500 million, and the value of e-commerce has risen from $36 billion in 2000 to $323 billion in 2010. All the member states are contracting states of the European Patent Convention (under which European patents are examined). Thirty-eight countries in total contract to the EPC, increasing further the value of a European patent.

Given the size of the market many US companies file in Europe as well as in the US. However, if they do so with scant appreciation of the different laws that are applied to examine their patents in Europe, they risk obtaining no valuable patents in Europe.

Patent strategy considerations for financial institutions

There is no one-size-fits-all patent strategy for financial institutions generally; however, different kinds of players will tend to adopt similar strategies. Most obviously, for example, ISVs will probably continue to have a relatively standard patent strategy, comprising protecting crown jewels and enforcing rights against other ISVs or exchanges. Their patent protection may also enable them to defend against insurgency from the traditional banks, looking for new territory, and facilitate acquisition or merger. OPBSs will continue to protect their core payment technology inventions, similar to the ISVs, but will do well to consider protecting innovations that are not core to their business, with the view to building war chests containing patents for facilitating cross-licensing deals with the traditional banks and even with social networking sites, who may both in future intrude into this territory.

The large traditional banks have the greatest challenge when it comes to patent strategy, as their innovation portfolios are so diverse. Multiple strategies will be required to deal with such diversity.

For example, banks might behave like a large IT firm by protecting 'core IT' innovations in territories where the technology is used or developed, in order to preserve market access by entering into valuable cross-licensing deals with competitors and gain leverage (and some control) over the historically far-more-IP-savvy IT systems houses.

In the retail banking sector, having a patent covering a new retail product is likely to be a badge of exclusivity and, as much as anything else, a marketing tool, as it is unlikely one bank will sue another bank over such a patent right. Nevertheless, banks will probably also need retail banking patents in order to preserve market access, avoid

balancing payments in future cross-licensing deals with other larger institutions, and gain an advantage over new entrants.

The most challenging patenting area for financial institutions is 'markets and trading'. It has huge value, requires significant investment in research and brain-power to stay ahead, and the resulting differentiators are hard to sustain with 'secrecy' no longer being an option. However, this area is also the one that has the highest hurdle to overcome in respect of obtaining patents outside of the US. The ISVs face the same hurdles in protecting most of their innovations.

A proposal for a business method patent drafting strategy

If an initial patent application is filed in the US, drafted by a US patent attorney, it will quite probably have been drafted with the requirements of the US patent system in mind, and it may lack sufficient "technical" content and emphasis to pass muster in Europe. If the patent application has entered Europe from the US, it is probably already too late to change the fate (painful death!) of that application.

In contrast, a European application drafted by a European patent attorney, is likely to include more "technical" detail, in an attempt to pass muster in Europe, and perhaps also in the US. However, preparing a European-style patent application, with additional technical content, can cause problems in the US procedure, which may not be readily apparent. Again, once the application has entered the US from Europe, it may be too late to make significant changes[15].

What is the practical advice?

At present, mindful of the vastly different rules governing software and business method subject matter in Europe and the US, and predicting that things won't change any time soon[16], we advocate giving serious consideration to a patent filing strategy that results in significantly different patent applications being filed in the US and in Europe for what purportedly relates to the same invention.

Although this is contrary to the conventions that enable patents to be filed internationally, on the basis of a single initial application drafted and filed in one country, we suggest there is currently no better option available.

In the US, the more liberal approach to business method patenting means that a patent application can afford to focus on the novel algorithm (the *overt* inventive business method idea), with emphasis placed on the 'business' advantages of the invention. Such an approach can draw a US patent examiner towards measuring 'inventiveness' against other business methods and away from raising rejections based on technical references that describe similar technology but applied in a different context entirely. In other words, less technical content[17] can be advantageous.

In contrast, a counterpart patent application in Europe should, if there is scope to do so, be directed towards the technical solutions to technical challenges faced when *implementing* the novel algorithm; avoiding reference to 'business' advantages altogether. Any reference to a business advantage in Europe rings alarm bells, even if there are genuine technical problems to solve, and a European examiner's natural prejudice towards business inventions can lead to irresolvable problems.

Having prepared separate applications, they should be filed entirely separately – one in the US and one in Europe – without reference to one another or claiming priority dates; not least, to reduce the risk that the arguments advanced in Europe could affect the assertion of patents filed and issued in the US.

In this way you build up territorial patent portfolios in both jurisdictions that are tailored towards the disparate laws, and which provide you with a stronger poker hand with which to play on the global stage.

While not the cheapest patent strategy available – and not one to be applied other than for the most valuable inventions – it is expected that this approach might avoid the 'onion-effect' on IP professionals, who are under huge pressure to obtain granted patents outside of the US.

Footnotes

1. http://www.linkedin.com/
2. For example, American Express, Goldman Sachs, JP Morgan, Morgan Stanley (publications in Jan-June 2010)
3. For example, Bank of America, Mastercard and VISA (publications in Jan-June 2010)
4. http://en.wikipedia.org/wiki/*State_Street_Bank_v._Signature_Financial_Group*
5. Washington Mutual's Bank Branch Configuration Patent, US6681985
6. http://webarchive.nationalarchives.gov.uk/+/http://www.dius.gov.uk/innovation/statistics_and_analysis/randd_scoreboard/sector_summaries/banks
7. http://en.wikipedia.org/wiki/DataTreasury
8. http://en.wikipedia.org/wiki/Ronald_A._Katz
9. http://www.fiercefinanceit.com/story/datatreasury-wins-big-patent-infringement-judgment-u-s-bank/2010-04-05
10. For example, eSpeed, Mopex and Trading Technologies
11. For example, PayPal and WorldPay
12. For example, "Keep the Change" from Bank of America
13. After the *In re Bilski* case in the US a patent for a business method can be granted if the method is performed using a machine (read "machine" as "computer"). In contrast, in Europe, the law requires a technical solution to a technical problem; and most business method patent applications fail due to being found to be technical solutions to *business problems*.
14. Presently: Canada and Australia are potentially as permissive as the US; the UK is as restrictive (if not more so) than Europe; many other countries, such as Japan and China, fall in between the US and European approaches. Changes in the law of all countries occur all the time!
15. Though some issues can be overcome by filing a US Continuation-In-Part with modified content
16. Supreme Court cases such as *Bilski* (supra) do not come along very often and the G03/08 Enlarged Board of Appeal case in the European Patent Office affirms that the EPO approach is correct
17. Subject, of course, to enablement and best mode requirements in the US

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