

# One-Blue: a blueprint for patent pools in high-tech

With the creation of One-Blue, six companies have developed an innovative patent pool for Blu-ray Disc products that levels the playing field, reduces costs and fosters fair use of the patent system in the optical disc sector

By Ruud Peters

When outsiders to the world of intellectual property hear the words patent pool, they may get something close to a warm feeling inside. After all, pooling has nice connotations: we pool our money to buy something we all want, or pool our resources in order to make better products.

By and large, this positive attitude also applies to patent pools. Combining patents from different companies and offering them as a bundle to prospective licensees is easier and cheaper for licensors and licensees alike. Patent pools significantly reduce transaction costs for everybody involved. They can also level the playing field, encouraging even-handed relations among licensors and fair competition between licensees. Most importantly, patent pools take costs out of the system, so consumers also benefit.

However, as insiders, we know that establishing a patent pool is not easy. How do we establish the relevant value of each patent in the pool? How do we organise enforcement actions against infringers? Who runs the pool? Dealing with these questions may require considerable time and effort, and even then the result is often far from perfect. The benefits of patent pools are rarely realised to their full extent.

As a pool of essential patents for Blu-ray Disc products, One-Blue provides

innovative and constructive solutions to maximise its benefits and address some difficult challenges. Its founding fathers – Cyberlink, Hitachi, Panasonic, Philips, Samsung and Sony – have worked hard to create an impartial environment for both licensees and licensors, to reduce overall costs for everyone involved and to discourage improper use of the patent system. We think that as a result of our efforts, One-Blue will raise patent pooling in the optical disc industry to a higher level compared to earlier patent pools in this domain. We are also convinced that other sectors can learn from our approach.

## One pool for all optical patents

One-Blue is a pool for all patents that are essential to any of the optical standards used for Blu-ray Disc products, including players, recorders, video discs, recordable and rewritable discs, drives and software. As Blu-ray Disc players, recorders and drives are backward-compatible with the various DVD and CD standards, these products include technology that is covered by a number of optical standards. A Blu-ray Disc recorder incorporates no less than 10 optical standards.

Although a patent pool is usually created for each individual standard's essential patents, this would have been extremely cumbersome for Blu-ray licensors and licensees. DVD licensees already have to deal with two separate patent pools for DVD products, a number of DVD licences from individual entities, various CD patent pools and additional CD licences from individual companies. This increases the total bill for licensees, as fragmentation tends to result in higher cumulative royalties. Similarly, transaction costs are higher for both licensors and licensees. The large number of DVD licences has also roughed up the playing field: where each pool and each

## One-Blue, One-Red and Adminius

One-Blue issued its call for Blu-ray Disc product patents in October 2009 and is expected to launch its licensing programme in mid-2011. Panasonic, Philips and Sony initiated discussions on One-Blue a number of years ago; Cyberlink, Hitachi and Samsung have since joined them as founding fathers and shareholders of the patent pool. Discussions with various other companies to join as licensors are ongoing.

One-Blue, whose headquarters are in New York City, will directly operate the management of the Blu-ray Disc licensing programme in the United States and Japan. In the rest of the world, including China, One-Blue has subcontracted management to One-Red, whose initial shareholders are Philips, Pioneer and Sony. One-Red will also take over worldwide management of CD/DVD licensing programmes that were previously managed by Philips. In its management of the Blu-ray licensing programme, One-Red will abide by the principles and policies defined for One-Blue, which will maintain overall global responsibility for the licensing programme.

Both One-Blue and One-Red will use administrative services provided by another new company, Adminius BV, based in the Netherlands. Adminius will deal with accounting, royalty distribution and the administration of per-batch licences. Various shareholders of One-Blue, including Philips, will transfer experienced optical disc licensing personnel to One-Blue, One-Red and Adminius to ensure a smooth start for the new patent pool.

individual company has its own strategy for enforcement, there is a greater chance of divergent enforcement policies towards (prospective) licensees.

In the case of Blu-ray, the number of licences needed would have increased even further had we continued on the same road. The general feeling in the optical disc market was that this was undesirable. One-Blue's founding companies decided to change direction and follow a one-stop shop approach. We established one Blu-ray pool for all our essential Blu-ray Disc, DVD and CD patents relating to the optical standards used in Blu-ray Disc products, thereby reducing total royalties and transaction costs. This is one of One-Blue's biggest achievements.

Pooling the patents was a complex task for One-Blue's shareholders and licensors. The larger the number of participants and patents in a pool, the harder it becomes to accommodate everyone's interests and wishes. However, the result was a joint patent pool which contains all of our patents that are essential for optical standards used in Blu-ray Disc products. Creating the pool was definitely worth the effort – not least because it significantly reduces transaction costs for licensors. More importantly, making life easier for licensees is clearly in a licensor's interests, as it encourages licensees to play by the rules.

### Enforcement and the free rider problem

Another innovation for greater fairness is One-Blue's development of enforcement agreements. We have decided that if One-Blue agrees to take enforcement action, each One-Blue licensor is obliged to cooperate. In most patent pools, licensors individually decide whether to engage in and cooperate with enforcement actions. This creates a serious free rider problem. Companies that do not participate in an enforcement action obtain almost all of the benefits at no cost; whereas companies that participate not only bear the costs, but are also disproportionately exposed to retaliatory action from the companies that were targeted by the enforcement initiative. One-Blue's founders remembered the problems that this has caused in the domain of optical discs, as well as other products and technologies.

In order to avoid the problem, the One-Blue companies agreed that if One-Blue decides that an enforcement action is warranted, each licensor must make its patents available for use. The law firm used by One-Blue is then responsible for deciding which patents are most appropriate for use

against infringers; the licensors of these patents cannot withhold them from One-Blue's initiative and must cooperate fully.

### Independent licensing company

One-Blue is an independent licensing entity. Its six founding licensors are its shareholders, but its management is independent of individual shareholders and acts only in the best interests of the patent pool. This structure marks a departure from previous practice in optical disc licensing.

The story of licensing optical disc patents began in 1981, when Sony and Philips started licensing their CD-audio patents. Philips acted as the licensing agent for both companies and retained this agency role in successive rounds of optical disc licensing for recordable CDs and DVDs. Philips's role was appropriate for a small number of patents, for a pool of only two companies and for the relatively benign patent climate of the early 1980s; however, much has changed since then. The number of patents in the domain of optical discs and the number of companies that own these patents have risen sharply over the past 30 years (Figure 1); the patent climate has become more diverse and sometimes more antagonistic. As a result, Philips and other owners of optical disc patents agreed that a different structure would be preferable for a Blu-ray patent pool – hence the decision to form One-Blue as a fully independent licensing entity.

### Per batch licensing

One-Blue supports the creation of a level playing field by defending good-faith licensees and licensors from companies that do not want to play by the rules. Unfortunately, some companies sign licence agreements with companies or patent pools, often for long periods, despite having no intention of paying the stipulated royalties. Even if they make no payments, technically they are still licensed. Legal action to force an unwilling licensee to pay its full due can take years. In the meantime, a licensee that does not pay royalties has an obvious competitive advantage over the good-faith licensees that do.

To tackle this problem, One-Blue has decided to license per batch (ie, for each shipment of products), rather than for all products sold over a set number of years. In this way, the licensee's legal right to use patented technology can be tied to the payment of royalties. Per-batch licensing is another innovative approach by One-Blue that will create a fairer commercial environment for all licensees, as good-faith

licensees will suffer less from unscrupulous competitors. One-Blue's approach builds on the successful per-batch licensing system introduced by Philips for DVD discs and player products.

Per-batch licensing involves extra effort for both licensors and licensees. Mandatory licensed status confirmation documents will accompany each shipment of Blu-ray products. Registration logos will be printed on or inserted into products, while outer packaging will include serial number labels, identifying the batch and confirming its licensed status. Per-batch licensing, with its logos and labels, will make it easier for customs officers, distributors and retailers to detect unlicensed shipments. We are convinced that the small inconvenience and modest costs related to providing licensed status confirmation documents, logos and labels are far outweighed by the advantages of protecting the rights of licensors and good-faith licensees.

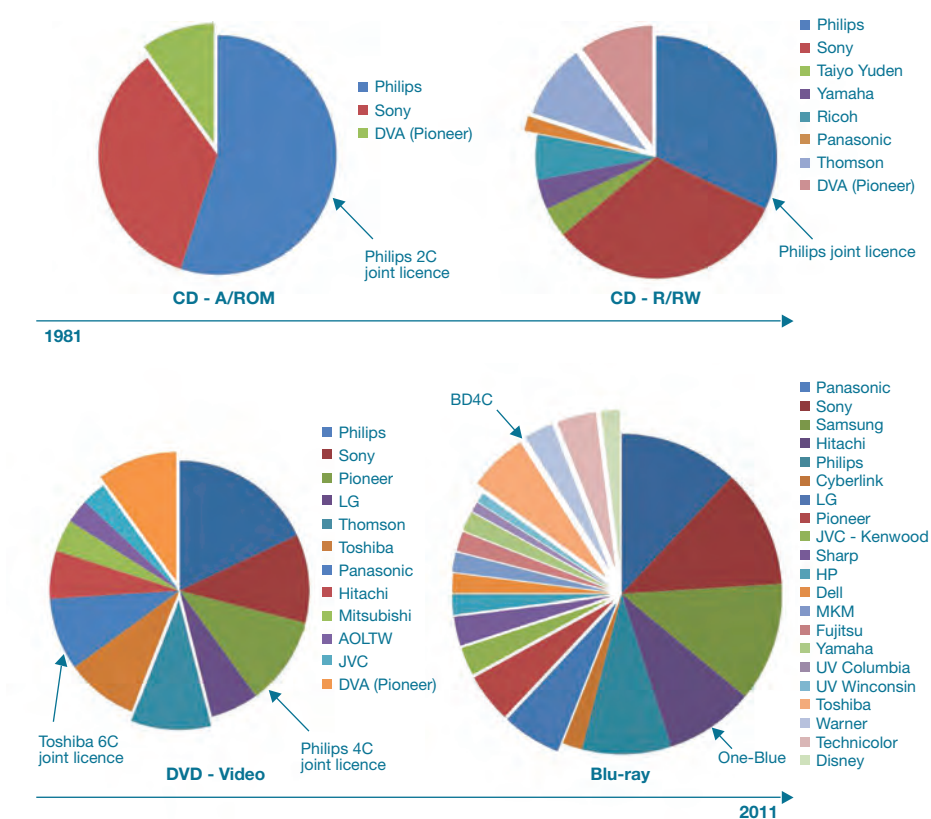
Invoices for royalty payments will be generated automatically, based on the number of products shipped in each batch during the royalty reporting period. This will significantly reduce the burden of royalty reporting and payments.

In order to make the system easier and avoid unnecessary effort and cost, One-Blue has established a pre-netting regime, as opposed to a post-netting regime, for the licensing programme. Some licensors and licensees have bilateral licensing agreements that also apply to patents in the One-Blue pool. These agreements and related royalty payments must be taken into account when calculating payments due to the One-Blue patent pool.

**Royalty distribution**

One-Blue tries to discourage unhelpful practices among licensors that are costly and harmful to the patent system. When a group of patent holders forms a patent pool, one of the basic questions relates to valuation: how much is each patent worth compared to the others? Often, this issue is solved indirectly. Patent pools tend to be limited to the patents that are essential to the standard or product – competition authorities would not want it otherwise. This is also the case for One-Blue. Various law firms in different countries examine the patents of an entity that wants to join One-Blue as a licensor and determine which patents are essential.

Traditionally, once a patent is deemed essential and can enter a pool, the same value is attached to each individual patent. This is understandable: it is difficult to



**Figure 1. Number of licensors per optical standard**  
Growth in owners of essential patents in optical disc technology over the past 30 years, from CD-A/ROM to CD-R/RW to DVD video to Blu-ray

reach agreement on the specific value of each individual patent in comparison to others, particularly as One-Blue pools more than 1,000 patents. The problem with the one patent, one dollar approach is that it encourages companies to obtain approval for a high number of separate essential patents for an invention – the more patents a company can contribute to a patent pool, the larger its share of the royalties. The classic way to achieve this is to file as many divisional patents or continuation patents as possible for one invention covered by a parent patent.

The only brake on this arms race of divisionals and continuations is the cost of filing and maintaining a patent; but as long as a company estimates this cost to be lower than the marginal income of an extra patent in the pool, it has an incentive to file an extra divisional. However, if all patent owners adopt this tactic, no one benefits and everyone has higher costs. Moreover,

## Action plan



If you are involved in the design and implementation of future patent pools, answer the following questions in your thoughts and discussions. All of these questions have been addressed by One-Blue:

- Should we accept the existence of various standard-based pools or can we integrate all of the licensors' essential patents into one pool?
- Should one of the licensors be the licensing agent for the pool, should we turn to an existing licensing agent or should we establish a new independent entity to run the pool's licensing programme?
- Is pre-netting or post-netting the most appropriate royalty payment regime for the pool?
- Should we establish the principle of mandatory participation of each licensor in enforcement action by the pool?
- Is it feasible to level the playing field for licensees through per-batch licensing?
- Are there rational ways to attach different valuation weightings to separate classes of patent in order to reflect the differences in cost and importance of the underlying research?
- What is the best way to counter the uncontrolled and costly proliferation of divisionals and continuations?

## One-Blue: levelling the playing field in patent pools

One-Blue has many advantages. Among the most compelling are:

- **Let's stick together:** One-Blue is a patent pool for Blu-ray Disc products, not for one individual standard or format.
- **No pay, no play:** One-Blue provides per-batch licensing instead of licensing for a long fixed period.
- **Stop the arms race:** One-Blue discourages the artificial and costly growth of divisional patents.
- **Give every patent its due:** One-Blue

puts a higher value on research-heavy physical format patents compared to application format patents.

- **Don't pay twice for the same licence:** One-Blue applies pre-netting, not post-netting, to royalty payments.
- **One for all and all for one:** One-Blue has agreed on mandatory participation of all licensors in enforcement actions.
- **Neutrality rules:** One-Blue is a separate licensing entity, independent of any of its individual shareholders/licensors.

the uncontrolled growth of divisionals and continuations leads to patent thickets and detracts from the legitimacy of the patent system, as outsiders may see it as a means of 'gaming the system'. A blatant illustration of the problem was provided by a company that added 250 divisionals to one parent patent.

One-Blue took the bold step of differentiating between patents when evaluating the patents in the pool, deciding that some patents are more equal than others. For each parent patent, we take a maximum number of divisionals or continuations into account for royalty-sharing purposes. In addition, the total weighting of all divisionals and continuations related to one parent patent cannot exceed the weighting of their parent. Exceptions will be made only where a divisional or continuation includes an invention that is distinct from the parent patent.

We also decided to acknowledge an old truth: in general, more costly research is needed for a physical format invention – the real hardcore technology – than for an application format invention. Moreover, physical format technology is used all the time in the product, whereas application format technology is often used only incidentally. Therefore, we decided to give more weight to physical format patents than to application format patents.

### Innovative patent pool approach

As a result of these innovative steps, One-Blue is an impartial patent pool that reduces transaction costs and brings greater fairness to the patent system. The parties would have liked to have finalised the agreements earlier, but reaching agreement was not always easy. Companies had a lot at stake in the discussions on the relative valuation of divisionals versus parent patents; the same

holds true for physical format versus application format patents. Issues such as per-batch licensing, pre-netting and mandatory participation in enforcement actions were also vigorously debated. After years of discussions, reasonable compromises were reached and the common drive to establish a fair, low-cost patent pool prevailed. We are now engaged in talks with various other companies that have essential patents in the Blu-ray domain and are interested in joining One-Blue as licensors.

It would have been great to present One-Blue as a one-stop shop licence for Blu-ray Disc products. Unfortunately, a few companies decided not to join One-Blue and to set up their own patent pool, BD4C. This is not in the best interests of licensees, licensors or the patent system. Therefore, I would like to invite these companies to join One-Blue so that we can offer licensees a true one-stop shop licence.

One-Blue's innovative approach to patent pool licensing offers a great example to future patent pools that goes far beyond the field of optical disc technology. Many of the principles and solutions applied in One-Blue could be used for patent pools in other areas, such as smartphones, computers and navigation devices. I sincerely hope that One-Blue will prove to be a trendsetter, and that future patent pools will prove better at levelling the playing field, reducing costs and fostering a fair patent system. **iam**

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