The CIPO manifesto

The time has come for all large corporations to appoint a chief intellectual property officer. Without a senior executive with overall responsibility for all aspects of the IP function, no company can hope to maximise the value of the rights it owns

By **Robert Sterne** and **Ron Laurie**

It is no secret that the perceived value of intellectual property, and of patents in particular, has undergone a dramatic transformation over the past decade. This is true not only among companies, but also, more recently, in the financial markets.

Traditionally, a patent was viewed as conferring on its owner an exclusionary legal right (in many countries, patents are commonly referred to as IPRs; ie, intellectual property rights). This right was exercised – commercially exploited – in one of two ways: either by excluding competitors from the market space represented by the patented product or process; or by taxing them for the privilege of participating in that space via licence fees.

Although a patent's value is ultimately directly related to its exclusionary power, patents have now become recognised as a commercial asset class like real estate or corporate securities. Like other asset classes, they can be monetised in a wide variety of ways.

This change in perception is just beginning to be reflected in the role, responsibilities and organisational locus of the corporate officer charged with managing the intellectual property function inside many types of company, but especially those in the technology sector.

Lost in legal

As a result of the previous focus on legal rights, the IP function was almost always embedded within the corporate legal organisation and the individual in charge of IP reported to the company's chief legal officer: the general counsel or VP-law. The IP department was tasked with protecting the company's patents, trademarks and copyrights by perfecting those legal rights through the relevant governmental administrative channels, as well as protecting the company's trade secrets via confidentiality agreements with employees and third parties, and by the use of appropriate internal safeguards. However, enforcing those rights through litigation and commercialising those rights in the context of inter-company business transactions were often considered outside the purview of the IP department and resided elsewhere in the legal organisation. Over time, a few companies moved the IP function, or parts of it, out of the legal department, so that, for example, protection of IP was moved into the R&D organisation.

As IP has evolved into an established asset class, the interactions between the IP department and other functions within the enterprise beyond R&D, such as business development, strategic planning, corporate finance and government affairs, have necessarily expanded.

It is the central premise of this article that because of these new interactions, the IP function will be sub-optimised if it remains encapsulated within the company's legal structure. While IP risk management remains an essential corporate priority, more attention must be paid to the value side of the IP ledger. In order to unlock the value of a company's IP assets fully, responsibility for all IP management functions should be lodged in a single individual, the chief intellectual property officer (CIPO), whose corporate authority is co-equal with the other C-level executives within the company, including the general counsel.

To varying degrees, this reporting model is already followed in smaller technology companies, either intentionally or by default. It is also seen in IP companies; in other words, those firms that conduct ongoing R&D programmes, but whose only products are intangible (eg, in the form of semiconductor design data or process technology) and which derive their primary revenue from IP licensing. However, in larger companies it is the rare exception that the individual in charge of IP management reports directly to the CEO or other supra-C-level executive such as an executive vice-president.

The most compelling argument for this elevation of the IP function to C-level status is that if IP reports to top management through the chief legal officer (CLO) or chief technology officer (CTO), the IP message will be filtered through the perspective of the intermediate function – risk management in the case of the CLO or product development in the case of the CTO. Rather, the CIPO should be on the same level of the organisation chart so that the various new interactions between IP and the other C-level functions within the company will be enhanced.

Corporate development, M&A

Mergers and acquisitions traditionally are led by corporate business development executives and their outside financial and legal advisers (investment bankers, accounting firms and law firms). These transactions involve the acquisition or divestiture of corporate assets that often include or involve substantial IP components. However, these IP components are usually not addressed until late in the deal cycle when the identification and allocation of potential IP risks become one of the final hurdles that must be overcome before a definitive agreement is executed, or before closing. IP counsel is typically brought in at the eleventh hour and asked whether there is any IP risk (usually in the form of an actual or prospective third-party infringement claim) that is significant enough to kill the deal. This common approach is sub-optimal because the focus is almost entirely on evaluating third-party IP risk and not on analysing and valuing the target's IP as a part of deciding whether the deal should be done, how it should be structured (eg, merger, stock purchase, asset purchase) and, most importantly, at what price.

The CIPO position inherently can correct this deficient approach by elevating the IP aspect of M&A opportunities to the level of the other key business considerations, such as strategic fit, competitive advantage, timing, cost and value. The CIPO becomes an essential member of the M&A team and manages the IP aspects of the deal at each stage of the process. IP is no longer relegated to the end of the deal cycle as one of the last due diligence boxes to be checked off. Instead, IP becomes a key focus of attention from the beginning of the process and thus becomes much more of a deal enhancer and negotiation tool.

In fact, ideally IP should be considered well in advance of negotiating a particular acquisition or divestiture, during the formation of the company's growth strategy and in comparing various prospective M&A opportunities to one another. Since IP assets in many technology M&A transactions constitute a substantial, if not paramount, value component of the opportunity, the CIPO makes sure that this value is realised if the deal gets done.

The role the CIPO can play is substantial in creating value in M&A activity, corporate spin-outs, joint development and strategic alliances. Often this IP potential is lost today because the company's internal IP experts are not brought over the wall (told about the deal) until there is basic agreement on all major deal points, including price. By elevating IP to a C-level function, it is much more likely that IP will be considered during the critical early stages of the deal as well as during the formation of the overall corporate M&A strategy.

R&D, strategic planning, standards

An effective R&D programme produces competitive advantage in the form of lead-time and first mover advantage. Effective IP management, on the other hand, produces sustainable competitive advantage. Under the traditional corporate R&D model, IP is the fruit that falls off the R&D tree. In more IP-enlightened companies, the IP organisation may have the responsibility of shaking the tree to make sure that more fruit is collected. In both cases, however, IP is a by-product of the R&D activity.

While this is a perfectly appropriate model, it can be supplemented by a more radical approach, sometimes referred to as directed innovation. This involves identifying future choke points or road blocks along a technology evolution path, focusing internal or third-party consultant R&D resources on the solution of the problems that create them and then broadly patenting the solutions (subject to meeting enablement requirements) before anyone begins product

Working with the chief finance officer

The CFO is traditionally charged with maximising the return on investment of the corporation's financial assets. For companies such as those in the technology sector, IP is one of these asset classes but one that is usually ignored because of lack of focus and understanding of how best to realise economic value.

The CIPO can extract this value from the company's IP and thus maximise the ROI for these depreciating assets. One example of how the CIPO can work with the CFO is through the monetisation of redundant patent properties or those covering non-core technologies. This monetisation can take the form of an outright sale (either with or without a grant-back licence), one or more exclusive field-of-use licences in non-core areas, or equity in a corporate spin-out which operates in the non-core space(s). Often these patents and applications were created at substantial expense as part of an R&D effort, but have become associated with a stranded technology because of a change in corporate direction or because they were acquired as part of an M&A transaction but are not relevant to the company's primary markets.

The economic value of these underperforming portfolios, however, is entirely contextual and depends on the use to which they are put by their owner. If a new owner can be found that places greater value on the portfolio, then the unrealised value delta can be extracted. With the emergence of semi-liquid markets for IP in the last couple of years, the opportunity to monetise these underperforming portfolios has increased dramatically and allows the CIPO to extract value by outright sale, corporate spin-out, contribution to a joint venture or one or more exclusive field-of-use (EFOU) licences in non-core areas. IP intermediaries can be used or the CIPO can identify the prospective buyers, equity investors, joint venture partners or EFOU licensees. But regardless of the approach, the CIPO needs to own the responsibility for maximising the ROIP of the enterprise and thus be tasked with the job of monetising underperforming IP assets. The effect of these transactions on the corporate balance sheet and income statement is obvious, as is the need for a close working relationship between CIPO and CFO.

Another interaction between the CIPO and CFO is in connection with IP securitisation, a model in which the past financial performance of the IP is used to project future royalty revenue streams with expectation of probable return being sold as a security to investors. This model has been used with copyright assets, such as portfolios of media properties in the form of films, music and images. Such copyright assets have demonstrated financial returns that can be appropriately projected into the future and these future revenue streams securitised for the IP owner as a way to monetise the IP asset for present value. Considerable IP expertise is needed to determine whether an IP asset meets the criteria for securitisation. Lately, there has been increasing interest in extending the IP securitisation model from content assets to technology assets, and a number of specialist firms have been formed to facilitate this form of monetisation. The CIPO is the senior corporate officer best equipped to evaluate the appropriateness of these securitisation options.

Another significant IP finance opportunity involves collateralisation of corporate IP. This is a form of asset-based lending, where the IP is pledged as collateral for a loan. The proceeds from the loan are obtained at much lower interest rates because the lender has the IP as collateral and thus is secured by this asset base. Traditional lenders, such as banks and finance companies, usually have no internal expertise in assessing the value of the IP assets being pledged so specialist firms have been formed to bridge this gap between IP owners and commercial lenders. The CIPO has the necessary expertise to interface with these IP finance firms so that the enterprise obtains such funding at an interest rate commensurate with the value of the IP assets. This is another way in which operating capital for the enterprise can be extracted from underperforming IP assets.

In the area of financial disclosure and reporting requirements, there are many reasons for a close working relationship between the CIPO and CFO. For example, in the US Financial Accounting Standards (FAS) 141 was recently amended to require "identifiable intangibles" (which includes patents) acquired in a corporate merger or acquisition to be separately valued, while FAS 142 requires any subsequent impairment in the value of such assets to be reported. Can it be very long before a patent portfolio purchased on the open market is similarly treated for reporting purposes? What about a requirement for valuing internally developed IP as a line item on the corporate balance sheet? And, in an era of increasing emphasis on financial transparency, will we get to a point of requiring disclosure of significant IP management decisions, such as the sale of strategically important patents, or the refusal to pay royalties to the owner of a third-party patent which could potentially shut down an important product line?

development. In these cases, IP becomes the driver rather than the by-product and the interaction between the IP and R&D functions becomes critical to success. Elevating IP to a C-level position will greatly enhance this interaction.

Strategic IP planning requires a detailed understanding of the patent landscape in which the enterprise operates. Knowing how the company's patents relate to those of third parties active in the same markets, both current and anticipated, is a critical element of strategic planning. The CIPO is best positioned to create and maintain an accurate picture of the relevant patent terrain (this is particularly true in the US in light of the important, and controversial, issue of under what circumstances knowledge of third-party patents creates treble damages exposure for wilful infringement).

Input will need to be obtained from R&D, from business development and from strategic planning on an ongoing basis in order to keep the patent map current. Sophisticated computer tools will need to be employed to allow immediate and insightful visualisation of patent landscape information that can be used in evaluating new products, services, and markets, as well as in

connection with M&A opportunities and patent litigation.

Another area in which close interaction between the CIPO and CTO can produce beneficial results is in connection with standard-setting organisations (SSOs). Standards are the driver of commercial success for many emerging technologies so that a community of innovators can leverage a new market to critical mass. The flip-side of such standards are patents that can act to block or tax the use of the standard by competitors. Involvement with SSOs is the *sine qua non* for companies in many industries. The CIPO must monitor and manage this involvement in terms of controlling whether and to what extent the company's patents become subject to mandatory licensing obligations imposed by the SSO participant agreement. Potential antitrust and patent misuse issues must also be carefully addressed by the CIPO.

Open source, third-party code

The CIPO should be the chief company strategist in dealing with the open source movement and third-party code to protect and enhance business models.

Open source software is both a blessing and a curse in terms of the profitability of the enterprise. It allows for cost-effective leverage of the work of others in developing code and software products. But it also cuts into profit margins traditionally enjoyed by proprietary software and services and, in a worst-case scenario, the open source code may be so tightly integrated with proprietary code that the latter will be infected to such an extent that it loses copyright protection (commercial software tools are now available to determine whether open source code is present in a code base and should be frequently used).

Because the use of open source code can have a negative impact on internally developed IP, the corporate strategy for participating in an open source business model should be the province of the CIPO. Moreover, each open source community has its own rules that have a direct impact on corporate profitability. The business model and its profitability will be changing as the open source models evolve. The CIPO will have to work closely with the CTO, chief marketing officer (CMO) and business development in following these trends.

Third-party code is readily available and easily incorporated into the company's products and services. The CIPO must work with the CTO in setting up trusted databases that track such third-party code. Otherwise, copyright infringement liability will creep into the code base of the enterprise. The ability to sell, license or securitise such a code base, or to sell the enterprise itself, may be significantly impaired if uncertainty exists about the origins of important pieces of the code base. Identifying and eliminating unlicensed third-party code from a commercial software product after the fact can be very costly and could be fatal to a transaction in which the product plays a significant role.

Legal

In most companies today the IP function is housed within the legal department and the head of IP reports directly to the CLO; usually the general counsel or VP-law. Ideally, however, a CIPO should have the same organisational status and authority as the CLO and thus the allocation of IP-related responsibilities between them presents the most challenging, and contentious, issues in establishing a true CIPO position. This is especially true in the case of IP litigation, which on the one hand involves IP (the subject-matter view) but on the other hand involves the fine art of litigation (the process view).

Obviously, there needs to be very close cooperation between the CIPO and CLO in connection with IP litigation, but which of them has the final authority in this area will vary from company to company. Among the factors that will influence this decision are the size of the enterprise, the corporate culture, the complexity of the technology, the litigation experience of the CIPO and, of course, the personalities involved.

One argument for giving ultimate responsibility over IP litigation to the CIPO is that in the context of IP licensing, and particularly assertion-based (aka stick) patent licensing programmes, infringement litigation has become an almost indispensable tool in convincing licensees to sign on the dotted line, at least in the early stages of such a licensing programme. Because this kind of licensing is inextricably bound up with litigation, it makes sense to have the transactional responsibility and the enforcement responsibility reside in a single individual, the CIPO.

The most frequently heard argument for maintaining the prevailing organisational model in which the head of IP reports directly to the CLO is that IP is a significant source of legal risk for the enterprise and that management of legal risk is the province of the legal department. While this

How to identify the perfect CIPO

The CIPO's job is to have a 360° perspective of the IP of the enterprise in order to extract maximum value and optimally reduce risk. This is a tall order that requires the CIPO to possess a unique combination of experience and skills in order to be effective. In identifying the best candidates for the CIPO position, it is essential to catalogue the attributes that the candidate must possess.

The first skill set that the CIPO must have is a firm grasp of the IP assets and IP-related risks of the enterprise. This requires that the candidate have a working familiarity with all aspects of IP law and practice in the jurisdiction in which the enterprise does its primary business, and a generalised understanding of IP law and practice in the other countries that represent its key markets. This knowledge must cover three legal domains: (1) patent, copyright, trademark and trade secret protection; (2) IP-related commercial transactions, including but not limited to licensing; and (3) enforcement, in the courts and before administrative bodies such as the US International Trade Commission.

The second skill set is a good understanding of both near term and long term strategic goals of the enterprise as well as its current business practices. This knowledge of the business goals and practices allows the CIPO to map the IP opportunities and risks to them. Such mapping is critical for maximising IP value and minimising IP risk in an optimal, cost-effective manner.

The third skill set is an understanding of all technology domains and commercial markets in which the company is, or is likely to become, active. This understanding must be at a sufficient level to appreciate the key nuances of the technical and market forces that significantly impact the corporate goals and business models, and the trends that could disrupt those goals and models.

The fourth skill set involves business practices and procedures. These include superior negotiating skills, budgeting and financial expertise, and strong solid managerial abilities. The CIPO must be a good team builder and be able to deal effectively with recruiting, performance, and training demands of his or her reports.

The fifth skill set are those of a superior communicator with good interpersonal skills and strong emotional intelligence. The CIPO will have to be able to articulate clearly and succinctly the IP plan and its execution to the CEO and other senior executives, as well as to the board of directors, shareholders, analysts and the press. Additionally, the CIPO must be a good team player who can work well with, and obtain essential help from, his or her C-level peers such as the CFO, CLO, CTO, CMO, CIO and VP of business development. The co-operation of these other C-level executives is absolutely essential for the CIPO to be effective, even if the CIPO has the needed resources and staff required to discharge the IP functions of the enterprise. Moreover, the CIPO will have to deal effectively with people below him or her in the reporting structure. An aloof, arrogant or publicly awkward persona will detract appreciably from the CIPO's performance and could be professionally fatal.

The sixth skill set includes leadership and perceived competence. The CIPO must be trusted and respected. The CIPO function requires so many interactions with so many different parts of the enterprise that a lack of trust will substantially impede the CIPO in getting essential things done. The CIPO will interact with many peers whose responsibilities touch directly on key aspects of the IP of the enterprise. These peers must be convinced that the CIPO is professionally competent to discharge the IP functions and is not just a good salesperson or promoter of over-generalised IP plans and platitudes. Several failed CIPOs of recent vintage are believed to have flamed-out because their peers perceived them as not having the knowledge and ability to execute the IP plans that they promoted.

So where do these ideal CIPO candidates come from? Many will be IP counsels who have the rare ability to grow and diversify their skill sets beyond those of the stereotypical back-room techno-geek patent attorney. Others will come up through corporate business development, technology transfer or licensing organisations, and will not be attorneys. Some will be former senior government officials who were involved with IP and married this experience with prior governmental, business or academic service.

The need for CIPOs will undoubtedly grow even though there is significant resistance to the creation of the position in many traditional, large companies. This creates a training opportunity for law and business schools that are on the cutting edge of IP policy and strategy. It will be interesting to see which type of school will seize the opportunity and whether they will collaborate with one another to create joint degree programmes in IP management.

is certainly true, and makes a very close working relationship between them absolutely essential, it does not preclude a model in which the CIPO is ultimately responsible for all aspects of IP and reports to the CEO or an executive VP.

Public policy, government affairs

Especially in the United States, where powerful market forces have combined to drive patent reform, the current IP regime may undergo considerable change over the next several years. This change will come from the doctrinal tension between the US Supreme Court and the Federal Circuit, from the increasing administrative burdens on the US Patent & Trademark Office, and from Congressional responses to stakeholders with the most effective lobbying programmes.

Actual and proposed changes must be assessed against the strategic goals and business models of each company, large or small, and it is incumbent on the CIPO to engage and be heard both within the enterprise and before the various governmental entities. A head in the sand approach is neither prudent nor advisable in terms of advancing corporate IP strategy and the CIPO should be the voice of the enterprise in connection with IP policy issues.

Tax

There are significant tax implications and opportunities associated with IP, especially for an enterprise operating on a global basis.

Significant tax benefits and savings can be obtained by careful structuring of ownership of the IP and appropriate trans-national licensing arrangements. In addition, in the United States, it may be possible to achieve considerable state tax savings by having the IP of the enterprise held in a separate entity whose situs is in a state whose tax laws are more favourable to intangible assets.

The CIPO must have adequate resources

The CIPO can provide the 360° IP plan and implementation only if provided with the resources and staff that are needed. The CIPO cannot rely on a matrix structure where his or her effectiveness depends on the beneficence of peers and their staffs and resources. The CIPO thus creates a separate team within the enterprise focused on all of the IP functions. Critics will undoubtedly claim that this creates more bureaucracy and complexity and unnecessary additional layering of corporate management.

Such criticism, however, fails to acknowledge the substantial added value that the CIPO provides to the enterprise by integrating overall responsibility for all IP functions in a single individual. Some of the needed personnel and resources for the IP function are likely to come from the corporate legal department where the IP function has traditionally resided. Other personnel and resources will come from R&D, from business development and from finance. While this may result in some corporate infighting when first implemented, the benefits should soon become apparent to these other departments.

Sources of resistance to creation of a CIPO position

There is substantial resistance to the creation of the CIPO position in many companies around the world, especially in larger, more established corporate organisations. Why?

Probably the most important factor is the perceived loss of power and control by the C-level executives who have to relinquish what has become a highly visible, and often highly profitable, part of their corporate domain, along with some of their personnel and financial resources. As this is a big break from tradition, and enterprises as well as individuals inherently prefer the *status quo*, it is not hard to understand the resistance to creation of this new position.

Moreover, critics also focus on the inherent legal nature of many aspects of the CIPO position and the alleged benefits of keeping the IP function in the legal department, especially for risk management and control of litigation.

This reluctance is in contrast to the more positive view of the CIPO concept historically exhibited by many technology start-ups and IP business model enterprises. These organisations, especially in high tech, understand intuitively the importance of IP to their business model, their future growth and liquidity event options. This produces an alignment of interests between the C-level executives and the need to manage and maximise the IP assets as another way to increase shareholder value. Moreover, these enterprises cannot afford hierarchical management structures and thus tend to concentrate the IP functions and responsibility in one individual who reports to the CEO and often wears multiple management hats, including that of a CIPO. For start-ups and small enterprises, the CIPO function may be outsourced to an expert who often acts as a virtual CIPO for more than one enterprise.

Another reason for a bias against the CIPO position in many enterprises is the belief that a competent CIPO candidate is almost impossible to find. This thinking follows the logic that such a candidate must possess so many skills at such a level of proficiency that it is next to impossible to find such an individual in the real world. Moreover, the thinking goes, the cost of such an individual would be exorbitant due to short supply and high demand, and the benefit of such a highly compensated individual is not sufficient to justify the cost to the enterprise.

Obviously, this perceived problem, if it in fact exists, will dissipate over time as market forces attract top candidates to the CIPO position and many more experienced people become available. This parallels the expansion of IP professionals in general over the last several decades, as IP has become an essential component of all technologies and related business models. There is no reason to believe that many of the IP professionals will not be attracted to the CIPO position as a career path to even more expanded responsibility. ■

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Predictions about the CIPO of the future

In the world is flat economy, the senior management and boards of knowledge-intensive and content-rich enterprises constantly ask the fundamental question of how they will maintain their profitability, growth and competitive edge. High intelligence applied to business-directed creativity is no longer confined to the traditional industrialised nations; emerging countries, such as China and India, are now coming online with massive, highly educated workforces willing to work long hours while demanding relatively low wages. The proliferation of ubiquitous, high-speed, low-cost communications, and particularly the internet, has greatly amplified the level of this worldwide competitiveness, as well as accelerating the pace of change and innovation.

Assuming that senior corporate executives and board members buy into the belief that IP is essential for maintaining profitability, growth and competitive edge – which is not always the case in some enterprises and cultures – it follows that more emphasis will be placed on the proper creation, management and monetisation of IP in the realisation that these intangible assets are critical to the long-term health and survival of businesses.

It then follows that such senior executives and board members will demand IP best practices for their enterprise to discharge their fiduciary responsibility for IP oversight. It is likely that one result of this IP oversight will be the creation of more CIPO positions as a way to ensure that both the IP assets and risks of the enterprise are addressed and managed in an integrated, comprehensive way by a C-level executive responsible for all IP-related activities of the enterprise.