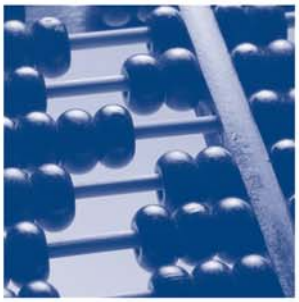
Equipment Leasing and Finance Foundation

Research Report

Intellectual Property Leasing and Its Implications for the Leasing Industry

2002



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EQUIPMENT LEASING AND FINANCE FOUNDATION

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The Equipment Leasing and Finance Foundation is a 501 (c) 3 non-profit organization established by the Equipment Leasing Association of America in 1989.

The Foundation develops and promotes the body of knowledge to enhance recognition and understanding of equipment lease financing. The Foundation's strategic objectives are:

- To maximize the role that equipment leasing plays in the world economy, and;
- To be the prime developer and disseminator of a body of knowledge of the leasing industry.

The Mission

To promote the growth and effectiveness of equipment leasing and finance through programs that:

- Identify, study, and report on critical issues affecting equipment leasing and finance, and
- Develop the body of knowledge of equipment leasing and finance for use by the equipment leasing and finance business, academic, and public policy communities.

All products and services developed by the Equipment Leasing and Finance Foundation are FREE! The Foundation relies on your generous support to conduct research to increase the industry's body of knowledge and to provide products to you. Please consider a tax-deductible contribution today.

EQUIPMENT LEASING AND FINANCE FOUNDATION

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Executive Summary

While leasing industry profitability remains high overall, the industry is in a consolidation mode with independent lessors struggling for profitability, mergers accelerating and a number of leasing companies exiting the industry. With many of the traditional areas of leasing such as transportation equipment (aircraft, trucks and trailers, and railcars) shrinking, the leasing industry is in need of new sectors to apply its finance leasing technology to continue its growth and prosperity. The new sector of growth opportunity for the leasing industry is clearly the technology sector and its related intellectual property assets

In recent years there has been increasing recognition of the significance of intellectual property and its growing importance as a business asset, reflecting an evolution of the United States from a manufacturing to a knowledge-based economy. The growing importance of intellectual property was highlighted by a PriceWaterhouseCoopers 1997 study, which determined that approximately two-thirds of the market value of U.S. public corporations reflected their intangible assets including intellectual property: a) copyrights b) patents c) trademarks and service marks and d) trade secrets including business processes, databases, and proprietary software. The overall growth of intellectual property in the economy and its growing use in finance lease transactions through the growth of software leasing indicated a strong need for the industry and the ELA to more clearly understand developments in the leasing of intellectual property and related intellectual property financing in other areas of the financial services industry.

In November, 2001, the Foundation contracted with Richard Crawford of the Darden Graduate Business School of the University of Virginia to conduct research on the use of intellectual property (principally patents, copyrights, trademarks and trade secrets) in finance lease transactions. The first part of this research involved an electronic survey of ELA member firms to determine: 1) how actively members were involved in financing activity with intellectual property and their activity with other forms of intellectual property besides copyrighted software leasing 2) whether any members are involved in intellectual property leasing other than software leasing and 3) what the nature of that leasing is.

132 firms responded to Part One of the Survey representing a cross section of the leasing industry. All major categories of lessors responded to the survey including 29 large ticket lessors, 74 middle market lessors, 49 small ticket lessors, and 40 lessors involved in vendor programs. Of the firms responding to part one of the survey, 62 (46%) indicating that their firm had considered intellectual property leasing and 60 (45%) indicating that they had actually done intellectual property leases. All 60 of the firms that had leased intellectual property had leased copyrighted software. However, several had leased other types of intellectual property including other copyrighted material (18), patents (5), trademarks (4), annual maintenance contracts (1),

and processes (1). The majority of the firms that had leased copyrighted software were active in the market with 75% of the firms either leasing copyrighted software as their primary or exclusive business or having done more than 10 copyrighted software leases and with almost 40% (23 firms) doing $5 million or over annually in copyrighted software leases.

Generally the respondents were satisfied with their intellectual property leasing activities with 47% characterizing their success to date with intellectual property transactions as highly successful and 45% as somewhat successful and only 8% as not successful. The respondents viewed their principal problems to date with these type of transactions as: 1) legally structuring the lease properly to protect the lesser (26), 2) effectively repossessing and selling the asset (22) and 3) valuing the property to determine the proper amount of the lease (10). Other problems cited were determining the credit risk and credit quality of the lessee and preserving the value of the intellectual property collateral.

Generally, it can be concluded that intellectual property finance leasing represents a major growth opportunity for the leasing industry. It can be further concluded that the leasing industry has already begun to participate in the growth potential of intellectual property in its widespread participation in copyrighted software leasing. Individual leasing companies have recognized the potential opportunity in the leasing of other types of intellectual property and are currently experimenting with leases of other types of intellectual property, but primarily in the form of secured loans rather than true leases.

It can be further concluded that the leasing industry lags behind the commercial finance industry in recognizing the scope of the opportunity because of the leasing industry's historical roots in financing tangible, depreciable equipment. Leasing companies have not systematically sought to create new leasing products around intellectual property, but rather evolved into it to 1) meet customer needs and 2) make profitable business deals. Specifically, the leasing industry has grown into large scale leasing of software as an adjunct to its computer hardware leasing activities rather than from a focused effort to apply finance leasing technology to other types of property besides tangible personal property like equipment. Given the growing importance of intellectual property and intangible assets, relative to tangible assets, the leasing industry needs to work on creative new products that will take advantage of the growth of intellectual property and its increasingly central role in both leading companies and the general economy.

Of the particular forms of intellectual property, patents appear to be particularly well-suited to various finance lease approaches. They resemble equipment in: 1) their clear ownership system without multiple owners 2) their finite, predictable life like equipment (including their potentially shorter useful life due to technological obsolescence) and 3) the potential tax benefits from amortization that could be utilized in lease transactions. The minimal current application of finance lease technology to patents coupled with the huge and growing value of patents and their income streams from licensing agreements (when licensed) potentially makes patents a very attractive area for the application of leasing technology. In order for this potential to be realized, the legal process for finance leasing of patents needs to be further developed by additional experimentation and experience with such leases and the infrastructure for valuing and

transferring patents needs to be developed more fully. Currently the infrastructure is being developed more fully, but the additional experimentation needed has not happened.

Intellectual Property Leasing and Its Implications for the Leasing Industry

The State of the Leasing Industry

According to the Foundation's report **State of the Industry 2001**, the equipment leasing industry enjoyed unprecedented growth until the third quarter of 2000. While GDP increased an average of 4% annually through the second half of the 1990s, the demand for business equipment and software increased at doubled-digit rates with similar growth rates for the leasing industry. However, by the end of the second quarter 2001, overall leasing volume had declined nearly 8% since the end of 2000 reflecting the recession. The slowdown in the growth of the leasing industry appears to be a secular trend rather than a cyclical trend with penetration of the market for financing business equipment having remained flat at approximately 30% of all business equipment for 10 years. Growth in the industry is directly tied to the cycle for capital spending, and more specifically to the cycle for tangible equipment purchases.

This reality is particularly significant for the leasing industry because of fundamental trends in the U.S. economy. The leasing industry's roots are in the financing of physical capital equipment and physical capital equipment is declining in importance to the American economy (and American companies) as the U.S. moves into a knowledge-intensive economy. According to Lowell Bryan, a partner of the McKinsey & Company consulting firm, U.S. companies need 20% less physical capital today to produce a dollar of sales than they did in 1975. In financial terms, "This means that U.S. companies are using about $530 billion dollars less financial capital than they would have used otherwise." according to Bryan. For the leasing industry, this means less leasing of equipment and slower growth than the overall growth of the economy, creating reduced growth and overcapacity for the industry as a whole.

General Electric provides an example of how the shift to the new knowledge-based economy has reduced the level of demand for tangible physical equipment on the part of companies as a result of new efficiencies. General Electric has set itself a goal of reducing its plant and equipment spending so that it is less than its depreciation charge. In 1996, the overall corporate ratio of plant and equipment spending to its depreciation charge was 1.5 to 1.0. By 1998, the ratio was 1.2 to 1.0 and the corporate goal is to reach 0.8 to 1.0 before 2005. Through this goal, General Electric seeks to use process improvements to increase output from old plants so that it can avoid new capital spending. At its European lighting business, GE has reduced the investment required to improve capacity from $1 of investment for $1 of capacity to $0.125 of investment for $1 of capacity (1/8th of the investment required previously). This focus on process improvement means less equipment needed and less equipment to be financed.

While leasing industry profitability remains high overall, the industry is in a consolidation mode with independent lessors struggling for profitability, mergers accelerating and a number of leasing companies exiting the industry. This reality was highlighted by the Foundation's study titled **The Perfect Storm** completed in 2001 which classified the equipment leasing industry as a mature industry with commodity-like services and increasing competition and margin compression resulting in steady ROE of 13% to 15%. The study further concluded that consistent, above market returns would only come from companies that add value to their customers and that developing new and more unique products had become more challenging. With many of the traditional areas of leasing such as transportation equipment (aircraft, trucks and trailers, and railcars) shrinking, the leasing industry is in need of new sectors to apply its finance leasing technology to continue its growth and prosperity.

The Leasing Industry's Market of Opportunity

The new sector of growth opportunity for the leasing industry is clearly the technology sector and its related intellectual property assets. This reality was highlighted at the ELA's 40th annual convention in Florida at the end of October, 2001 by Farhaan Hassan of Heller Venture Finance during the venture leasing panel's program. At that panel, Farhaan made the point that the computer hardware and software industries and telecommunications industries were respectively worth $500 billion and $324 billion in 2000 and were expected to grow to over a $1 trillion by 2005. Even more significant, he pointed out that in 1960 between 10% and 15% of a company's capital expense budget went to technology, but by 2000 it had risen to 53%. Even as technology in the form of combinations of hardware and software is increasingly dominating corporate capital spending, software is increasingly the dominant component of technology. In 1984, hardware typically represented 80% of a computer installation and software was 20%. By 2000, that ratio had reversed because of the dramatically declining cost of hardware, making software the major leasing opportunity in any computer installation.

Even though the leasing industry historically has focused on financing tangible personal property such as automobiles and equipment, the industry has also recognized the opportunity in software and already has extensive experience with the leasing of copyrighted software. According to the Equipment Leasing and Finance Foundation's **State of the Industry Report 2000** (page 6), software leases accounted for approximately 19% of leasing industry volume in 2000. Software leases of $60 billion and equipment leases of $260 billion made up the total industry volume of $320 billion.

The particular growth opportunity in intellectual property such as software is highlighted by ELA member LPI Software Funding Group on their website. They point out that 80% of American companies and 65% of the Fortune 1000 use leasing to acquire computer hardware. They further point out that in 1994 computer hardware was more than 20% of the cost of assets acquired through leasing while software was only 1.5% even though in 1994 information technology expenditure were split roughly evenly between the two categories: 1) computer hardware and 2) software and services. With software leasing lagging behind hardware leasing while software is increasingly more valuable than hardware, there is clearly a growing

opportunity to lease software. However, beyond greater software leasing, there is an opportunity to lease more intellectual property in general including non-software copyrights, patents, trademarks, and trade secrets.

The Nature and Significance of Intellectual Property

In recent years there has been increasing recognition of the significance of intellectual property and its growing importance as a business asset, reflecting an evolution of the United States from a manufacturing to a knowledge-based economy. The growing importance of intellectual property was highlighted by a PriceWaterhouseCoopers 1997 study, which determined that approximately two-thirds of the market value of U.S. public corporations reflected their intangible assets including intellectual property. Similarly, another study estimated the total value of intellectual property owned by S&P 500 companies at $3.4 trillion which far exceeds the tangible asset value of the same companies.

The reality of the growing importance of intangible assets is illustrated by one of the leading companies of the New Economy, Microsoft, whose market value in early April of 2002 was $307 billion while the value of the tangible plant and equipment on its balance sheet was only $2.4 billion, or less than 1 percent of its market value. Equally significant, Microsoft's market value was six times its net tangible asset value (primarily cash and investments) reflecting the significance of intangible assets to the company. As the Microsoft example illustrates, tangible assets such as equipment (the historical staple of the equipment leasing industry) are unimportant to the emerging economy where the future growth of the U.S. lies. Of much more importance to Microsoft and other New Economy companies is their intellectual property.

The types of intellectual property can be divided into several categories including:

a) Copyrights
b) Patents
c) Trademarks and service marks
d) Trade secrets including business processes, databases, and proprietary software.

Each type of intellectual property has unique features and characteristics. Each will be discussed below. Though all forms of intellectual property (copyrights, patents, trademarks, and trade secrets) are of growing importance to U.S. corporations, patents are of particular significance to the leasing industry because of their legal nature and potential to provide a major leasing opportunity.

Copyrights

A copyright is government protection of creative works of all types including books, magazine and newspaper articles, paintings, music, photographs, movies and videos, speeches, business reports, presentations, slides, and computer software. Copyright protection is based on

state law with Federal registration providing evidence of the copyright for litigation purposes. Copyrighted materials are huge in number with over 500,000 new copyrights being filed annually with the Copyright Office of the Library of Congress covering the full list of categories above. This volume of copyright filings reflects the value of copyrighted material to a variety of major industries.

In the publishing and entertainment industries the value of copyrights underlie the billions in annual revenues of these industries. Whether it is the titles of books copyrighted by major publishing houses, current movie releases or the libraries of old movies belonging to major movie studios, the Mickey Mouse character of the Disney company, new music releases or the old recordings of Elvis Presley which are owned by his estate, the theatrical productions and music recordings of the works of Andrew Lloyd Webber, both newly copyrighted and previously copyrighted material represent assets that produce and keep on producing in the form of ongoing royalty streams. Of even greater value than the value of copyrights to the publishing and entertainment industries, is the value of copyrighted software as computer software grows in importance. Much of the value of leading software companies like Microsoft and Oracle is built on their ownership of copyrighted software which they continue to sell.

The value of copyrighted material of all kinds in the U.S. economy is in the trillions of dollars based on the income of the publishing, entertainment and software industries. Table One below shows the 1999 revenues of the major U.S. industries dependent on copyrights, the world-revenues for those industries and the U.S. share of the global total:

Table One

Market Size of Major Creative Industries
(Billions of $US - 1999)

Industry	**U.S. Revenues**	**Worldwide Revenues**	**U.S. Percent**
Software	325	489	66.5
Entertainment	157	434	36.2
Publishing	137	506	27.5
Design	50	140	35.7
Advertising	20	45	44.4
Architecture	17	40	42.5
Fashion & Art	9	21	42.8
Crafts	2	20	10.0
Totals	*$717*	*$1,695*	*42.3%*

Source: John Howkins, **The Creative Economy: How People Make Money from Ideas**, New York; Allen Lane, The Penguin Press, 2001, p. 116

As can be seen by the industries involved such as software and entertainment and the size of

their revenues and global market share, copyrighted materials are key to the leading growth industries in the U.S. economy and provide the competitive edge to the U.S. in many of its exports in the world economy.

Patents

Along with copyrights, patents are one of the most valuable forms of government protection for intellectual property. A patent is granted in the U.S. by the United States Patent and Trademark Office of the Federal government. Under the U.S. statutes governing patents, a patent can be granted for product inventions, chemical formulas, and manufacturing processes determined by the U.S. Patent and Trademark Office to novel and unobvious. The purpose of the patent process is to encourage invention in the United States by providing legal protection for inventions. The essence of a patent is a limited economic monopoly sanctioned by law. A U.S. patent gives the patent holder the right to exclude others from making, using, and selling the covered product or process for a period of twenty years.

The significance of patents is seen in both the dramatic growth of the number of patents issued in the United States and the growth of U.S. corporations' patent portfolio values. During the period 1980 to 2000, new patents issued almost quadrupled from approximately 40,000 annually to approximately 160,000 annually. Today more than $4 billion a year is spent on patent applications alone with 345,000 being applied for in 2001 (up 94% from 178,000 in 1991). Supporting the development of new patents are the U.S.'s investment in R&D which amounted to $243 billion in 1999, 45% of total global expenditures on R&D.

On the basis of the licensing revenues alone, patents currently represent assets with a value in excess of $1 trillion. Patents will be even more important to U.S. corporations in the future with an estimate that patents will represent corporate assets with a value in excess of $5 trillion by the end of the decade solely on the basis of expected licensing revenues. Neither figure includes the value of patents that are used exclusively by their owning corporations in their ongoing business and are not subject to licensing (as is the case of many major drug companies for example).

The importance of patents is not exclusive to a few U.S. corporations, but is spread across the corporate landscape. Over 200 U.S. corporations have more than 1,000 patents. Some of the largest corporate patent portfolios by value are shown in table 1 below:

Table Two

The Significance of Corporate Patent Portfolios
($ in billions)

Company	Plant and Equipment	Patent Value	R&D Expense	1999 New Patents
IBM	$16.7	$26.1	$5.0	2736
Merck	$13.1	$24.3	$2.1	254
Motorola	$ 8.9	$11.1	$4.3	1207
Hewlett-Packard	$ 4.4	$10.5	$2.7	850
Lucent	$ 4.4	$ 9.4	$4.5	1137
Intel	$15.0	$ 8.6	$3.1	758
Sun Microsystems	$ 2.7	$ 3.1	$2.0	559

Source: 2001 Annual Reports (for Plant and Equipment and R&D expense), McDermott, Will & Emery (for patent value and data)

IBM not only is the leader in overall patent portfolio value, it is also the leader in new patents issued with over 3,000 new patents in 2001. However, while large corporations dominate the issuance and ownership of patents, patents are important to small corporations as well. Approximately 25% of new patents, or 40,000 annually, are issued to individual inventors or start-up companies.

Generally, the owner of intellectual property can generate income from the property in one of two ways: 1) through use of the property in the business by developing better products and services around the property or 2) through the licensing process. A license is a contract in which the licensor agrees not to enforce its legal rights against the licensee and is the mechanism by which the owners of most intellectual property rights exploit these rights commercially. In the two decade period 1980 to 2000, corporate patent licensing revenues grew 3,333% and in the decade 1990 to 2000, U.S. corporate patent licensing revenues increased over 600%, from $15 billion in 1990 to over $100 billion in 2000. Corporate patent licensing revenues are projected to grow to $500 billion by the end of this decade with most of that revenue representing pure profit to the corporations receiving it.

One major corporation, IBM, saw its patent licensing revenues grow from $30 million annually in 1990 to $1.7 billion annually in 2000 accounting for 15% of its overall profit. IBM's growth in licensing revenues during the 1990s far outpaced its overall growth in revenues during the same period. From 1993 to 2000, IBM's total corporate revenues grew approximately 35%,

from $62.7 billion to $85.9 billion, a growth rate far less than its growth rate in licensing revenues. IBM's licensing revenues had an even greater impact on its overall growth in profitability because most of its licensing revenues were generated with almost no additional expense (representing past investments in technology) and dropped directly to the bottom line.

Trademarks

A trademark includes a product company's distinctive word, letter, number, picture, or symbol or combination of word, letter, number, picture or symbol that is a valuable form of graphic identification of a company or its product. Like patents, trademarks are assets that showed dramatic growth in the 1990s and are of immense value to their owning corporations. Between 1993 and 2000, trademark applications at the U.S. Patent and Trademark Office tripled from slightly more than 100,000 annually to almost 300,000 annually. In 2000, the total value of the ten most valuable brands (including Coca Cola, Microsoft - Windows, Disney, and McDonalds) was estimated at $435 billion.

Though most of the value of trademarks lies in the marketing value of trademark for the goods and services of the owning corporations, licensing revenues from third parties for use on clothing, drinkware, toys, etc. are also substantial. Both for-profit corporations and non-profit associations are generating substantial revenue from trademark licensing. Direct licensing revenues from third party licensing was estimated at $5 billion annually in 2000 and growing. For example, designer Ralph Lauren/Polo's overall net licensing revenue in 2000 was $236 million while the environmental group GreenPeace earned over $200 million annually from licensing its brands in areas as diverse as organic food stuffs, ecological tourism, and traditional clothing and merchandise. The traditional leader in U.S. motorcycle manufacturing, Harley Davidson, now earns more from licensing its trademark than it does from making motorcycles.

Trade Secrets

Much of the value of many businesses lies in their proprietary information and knowledge that gives their products and services value in the marketplace. This proprietary information and knowledge can constitute trade secrets which are a form of intellectual property subject to legal protection. Trade secrets can include formulas, processes or methods of operation used in the production of a good or service, patterns, physical devices, ideas, compilations of information such as computerized databases, and proprietary computer software. The leading example of a valuable trade secret is the formula for Coca Cola which has been protected as a trade secret for over a century.

Proprietary software represents a huge investment by American business. Many businesses' whole value is tied up in the capabilities of their software. As indicated above, computer software can be copyrighted, but it is more difficult to patent. A patent grants a monopoly on the type of software, a copyright only protects against copying. There is no infringement of the copyright if another person develops the same or quite similar program. As a consequence, much of the software that powers American business is primarily protected as a

trade secret and must meet the legal requirements for trade secret protection.

The Use of Intellectual Property in Support of Financing Transactions

Intellectual property underlies the value of many of the most dynamic and profitable corporations in the United States and indirectly supports their financing transactions such as their issuance of stocks and bonds. However, reflecting the increasing importance of intellectual property to corporations and the value of that intellectual property, intellectual property has increasingly been used to directly support a variety of financing transactions in recent years. That growth is quite evident in the equipment leasing industry, where leasing of copyrighted software has been a major component of the growth of leasing transactions in the decade 1990 to 2000.

Like copyrighted software, patents have been a source of support for financing transactions. For example, in 1994, Dow Chemical completed a $100 million bond offering secured by its patent portfolio. In January 2001, Heller Financial completed a $270 million syndicated commercial finance transaction secured in part by the patents of the borrower (reported in the **Wall Street Journal,** p.C1, January 21, 2001). In addition to being used to support various forms of borrowings, patents have been the sole source of income for some public companies and the sole basis of their equity value and stock price. The most prominent of these is Rambus, a NASDAQ listed public company with annual income in excess of $100 million whose only asset is a patent covering semiconductor chips and its only income licensing income from semiconductor manufacturers who have licensed the patent for use in the chip making process. There have also been some finance leasing transactions involving patents. The first recorded finance leasing transaction involving patents occurred in 1993 when a venture leasing company named Aberlyn Capital Management, located in Boston, Massachusetts, completed a sale/leaseback transaction involving the patent of a biotechnology company called Rhomed. This particular transaction was the subject of a Harvard Business School case study titled **Aberlyn Capital Management: July 1993** (HBS case 9-294-083).

In the transaction described in the HBS case, Aberlyn Capital loaned Rhomed $1 million for three years at an interest rate of 15%. The loan was structured so that Rhomed would not pay any interest until the beginning of the second year and would make three even payments of principal at the end of the first, second, and third year plus 15% interest of the amount outstanding. The loan was secured by a patent valued at $5 million through a sale/licenseback arrangement in which Rhomed could purchase its patent back for $1 at the end of the three-year lease after repaying Aberlyn's loan. In addition to its loan interest, Aberlyn received warrants for Rhomed stock.

The management of Aberlyn saw a potentially very lucrative market for this type of transaction when it completed the Rhomed transaction. The Rhomed transaction was intended to be the test case for Aberlyn developing a business in the sale/licenseback of intangible assets for which it saw an enormous market. Aberlyn coined the term FLIPs (Financial Leases of Intellectual Property) to describe this category of transaction and expected to do many more if

the Rhomed transaction was successful. Unfortunately, Aberlyn's pioneering transaction did not work out. When a key alliance for Rhomed fell through, it was unable to repay its obligation. Subsequently, when Aberlyn tried to recover its loss by marketing the patent, it was unable to because potential buyers were not interested in purchasing a single patent. Competitors of Rhomed then started using the technology without a license when they realized that Aberlyn wouldn't spend the money necessary to defend the patent with the ultimate result that the patent became worthless.

Though this particular transaction ended up being unsuccessful it highlighted the potential as well as the pitfalls of this type of transaction. The theoretical advantages of finance lease transactions in the form of sale/license back as a way of utilizing patents as the collateral for a financing transaction are substantial. For the borrower, these include the ability to raise cash with debt instead of equity, recognizing on its balance sheet the value of assets previously off balance sheet, and the continued use in its business of the technology represented by the patent. For the lender, a sale/license back creates a secure transaction without the issue of obtaining title in the event of borrower default. It provides broad flexibility in structuring transactions since the license can be exclusive or non-exclusive. And the purchaser/lesser gets the license stream to repay the debt plus an equity upside in the patent itself (potential residual value) and warrants (if they are issued as part of the transaction as in a venture lease). Finally, there are potential tax benefits to both parties since the seller typically expenses the development of the patent against ordinary income, but can treat the total sales price as capital gains while the buyer can amortize the purchase price over the remaining life of the patent. However, for the lender, there are several pitfalls as well including determining a realistic value for the asset at the time of the loan, maintaining that value and realizing that value in the event of default on the loan, and cost of enforcing the lender's rights in the property in a loan default against third parties who might seek to infringe on a patent.

The Foundation's Intellectual Property Survey

The theoretical advantages of the sale/license back transaction, the existence of at least one transaction in this area, and the potentially huge market for this type of transaction indicated a strong need for additional research in this area. Specifically, research was needed to determine if other transactions had been done in the sale/license back area, how significant this level of activity was, what lessons were learned from past transactions, and what the general level of interest of the leasing industry was in this type of transaction. In addition, the overall growth of intellectual property in the economy and its growing use in finance lease transactions through the growth of software leasing indicated a strong need for the industry and the ELA more clearly to understand developments in the leasing of intellectual property and related intellectual property financing in other areas of the financial services industry.

To answer these and related questions, in November, 2001, the Foundation contracted with Richard Crawford of the Darden Graduate Business School of the University of Virginia to conduct research on the use of intellectual property (principally patents, copyrights, trademarks and trade secrets) in finance lease transactions. The first part of this study involved an electronic

survey of ELA member firms to determine to determine: 1) how actively members were involved in financing activity with intellectual property and their activity with other forms of intellectual property besides copyrighted software property leasing 2) whether any members are involved in intellectual property leasing other than software leasing and 3) what the nature of that leasing is. The survey questionnaire is presented in Appendix One The second part of the research involved interviews with a small sample of leasing executives who had responded to the questionnaire and literature search on intellectual property financing by other financial services companies (i.e. other than leasing companies).

The survey questionnaire and survey website were designed and developed in late November and early December, 2001 and approved by the Foundation in its final form on December 14, 2001. At the beginning of the following week, the Foundation communicated with approximately 400 member firms at the senior executive level asking them to participate in the survey. Over the next two weeks, 132 firms (one-third of those contacted) responded to the survey. The survey was divided into two parts with a series of questions in each part. The first part of the survey was for all respondents to the survey. The second part was for those respondents only who had indicated that their firm had participated in the finance leasing of intellectual property.

The Response to Part One of the Electronic Survey

Intellectual Property Leasing Activity

Part One of the survey had ten questions related to whether the respondent's firm was involved in intellectual property leasing, how extensively they were involved, and whether they were aware of other firms being involved. 132 firms responded to Part One of the Survey representing a cross section of the leasing industry. All major categories of lessors responded to the survey including 29 large ticket lessors, 74 middle market lessors, 49 small ticket lessors, and 40 lessors involved in vendor programs.

Of the firms responding to part one of the survey, 62 (46%) indicated that their firm had considered intellectual property leasing and 60 (45%) indicated that they had actually done intellectual property leases. Of those having done intellectual property leases, 22% did more than $10 million annually in such leases, 11% did between $5 million and $10 million in such leases, 29% did between $1 and $5 million annually and 38% did under $1 million annually. Fifty-five percent of those who did not currently make intellectual property leases indicated they might in the future under the right conditions. Twenty-one percent of those who did not currently make intellectual property leases indicated that their firm or a related entity had used intellectual property as collateral for a commercial finance transaction.

Specific Firms Participating in Intellectual Property Leasing

Part one of the survey asked if the respondent was aware of other firms or individuals who had leased intellectual property or used it as collateral for a commercial finance transaction.

40% of the firms responding to the survey were aware of other firms and individuals leasing intellectual property. These respondents named a large number of firms they believed were involved in leasing intellectual property including AT&T Capital, IBM Credit, GE Capital, Tyco (i.e. CIT), Silicon Valley Bank, Bank of the West, Manufacturers Bank, Mellon, CIBC Leasing, Fleet Business Credit, U.S. Leasing, Comdisco Ventures, Finova, LPI Inc., and Hitachi plus others. Significantly, a number of respondents made comments indicating that they believed that any company engaged in leasing computer hardware leased computer software as a routine part of the business and had to in order to be competitive. Typical statements made included "I don't have my competitor's guidelines but it seems that everyone who leases computer equipment must also lease copyrighted software as well as other soft costs including cabling, installation, training, etc. It goes part and parcel to the business of leasing technology. People who limit themselves to leasing software ace themselves out of a large part of the market." "Most every middle market leasing company has leased some amount of software for computer systems. It may be only the operating software, or it may be a customized software application."

Professionals Supporting Intellectual Property Leasing

Part One of the survey finished by asking if the respondent was aware of professionals (such as attorneys and accountants) who might have experience in structuring leases of intellectual property or securing loans with intellectual property as collateral. 25% of the firms responding were aware of professionals practicing in the area and mentioned several including both law firms and individuals. Law firms mentioned included Cooley, Goodward; Cohen, Salk & Huvard; Jaffe, Raitt, Heuer & Weiss; Moritt Hock & Hamroff; Wilson Sonsini; Moss & Barnett and Alston & Bird. No accounting firms or individual accountants were mentioned. The large number of lawyers practicing in the area was summed up in the comments like: "There are many attorneys who understand the implications of the revised Article 9" and "Most law firms have someone who can handle this."

The Response to Part Two of the Electronic Survey

Intellectual Property Leasing Activity

Part Two of the survey had 19 questions relating to the nature of intellectual property leased, the firm's experience with this leasing effort, and specific problems the firms had experienced with this effort. 60 firms completed Part Two of the survey. All 60 of the firms that had leased intellectual property had leased copyrighted software. However, several had leased other types of intellectual property including other copyrighted material (18), patents (5), trademarks (4), annual maintenance contracts (1), and processes (1).

The majority of the firms that had leased copyrighted software were active in the market, with 75% of the firms either leasing copyrighted software as their primary or exclusive business or having done more than 10 copyrighted software leases. Almost 40% (23 firms) were doing $5 million or over annually in copyrighted software leases.

In the patent area, one respondent had done more than 10 leases and had an annual dollar volume over $10 million. Three had done between one and ten leases and one had done one. Two of the respondents had an annual dollar volume between $1 and $10 million and two had an annual dollar volume under $1 million. In the trademark area, two had done between one and ten leases and two had done one. All trademark respondents had under $5 million annually in trademark leases.

Valuing Collateral

Over half of respondents (33) used market value to value intellectual property in leasing transactions followed by discounted cash flow (12) and replacement cost (9). Other methods cited included variations on cost including invoice price and development cost and insured value. Several respondents indicated they placed no value on the intellectual property so they used no method to value it.

Satisfaction and Problems

Generally the respondents were satisfied with their intellectual property leasing activities with 47% characterizing their success to date with intellectual property transactions as highly successful and 45% as somewhat successful and only 8% as not successful. The respondents viewed their principal problems to date with these type of transactions as: 1) legally structuring the lease properly to protect the lesser (26), 2) effectively repossessing and selling the asset (22) and 3) valuing the property to determine the proper amount of the lease (10). Other problems cited were determining the credit risk and credit quality of the lessee and preserving the value of the intellectual property collateral.

Eighty percent of the respondents were not aware of any reason that patents and trademarks were not more routinely used in leasing transactions. Of the 20% who were aware of reasons, difficulties in valuation, assignability and recovery were generally cited as reasons along with an overall lack of knowledge about these types of assets. Specific comments were made contrasting copyrighted software leasing with other types of intellectual property including "Copyrighted software can be associated with the lease of hardware as a percentage of the total lease involving a hard asset. The same circumstances do not apply with respect to patents and trademarks." "Patents/trademarks usually not part of a piece of equipment. I can lease the equipment and make a credit decision NOT a collateral decision. I can lease toothpicks and napkins (intellectual property) to a strong credit and lease gold bricks (strong collateral) to a weaker credit (collateral decision).

Equipment Leasing Association Activity

Fifty-four percent of the respondents thought there were steps that could be taken by ELA to support intellectual property finance lease transactions. These steps generally could be summarized as educational programs and materials for ELA members such as programs and material on how to value patents and how to structure patent leases. An advertising program for

prospective customers for patent leasing programs was also mentioned along with the need for educational programs in both the copyright and trademark areas along with the need in the patent area.

The Follow-on Interviews

As a follow on to the initial electronic survey of ELA members, Mr. Crawford undertook selected interviews of specific respondents to the electronic survey to learn more about their experiences and problems with intellectual property leasing. These interviews addressed a variety of questions relating to the specifics of the credit administration process, the structuring of intellectual property leases and the recovery process in a default situation. Participants in the survey included a range of executives from various types of leasing companies. The interview questionnaire is contained in Appendix Two and the executives interviewed in Appendix Three.

In terms of general background, the respondents to the telephone and personal interviews were all senior persons in their company with several of the respondents holding the title of President. As a result the majority had a major role in their company in terms of authority and policy. The amount of hands-on involvement in the making of leases in terms of negotiating and structuring specific leases or alternatively approving specific leases varied from company to company. The importance of intellectual property leases to their company's overall leasing portfolio varied from company to company with some companies having portfolios where software-only leases were under 10% of portfolio and others in which software-only leases were their only business. Software lessors ranged from captive leasing operations of software vendors, who financed their own software, to bank lessors who bought lease paper from software vendors. Several software lessors were trying to make big pushes into software because the new economy made it an area of growth. Some went further and stated that they saw intellectual property as the future of leasing industry.

Credit Policy

In terms of credit policy towards software leasing, most interviewees indicated that the basic credit concept was that all software leasing was an unsecured financing that looked to the success of the company and its cash flow. The leasing approach did not provide collateral for a secured financing transaction. Leases were generally a cash flow loan structured to the borrower, but because the borrower would surrender the asset in a default situation (which could put the company out of business) the lease did provide some leverage in a Chapter 11 situation. Most lessors utilized a bank type approach to their credit processes and standard credit tools, but independent and captive lessors tried to be more accommodating to customers.

In structuring copyrighted software leases, the term of leases varied widely with a range up to 60 months and a 24 month average. Interest rates on leases were competitive with other market rates and the dollar amount of leases covered a wide range from $30,000 to $30 million. One lessor indicated that it charged a higher interest rate on software deals than on deals with

hard collateral because of the greater risk due to the lack of collateral value in default. This lessor indicated that its vendors typically absorbed the higher rate by discounting their software and bundling the higher rate in the total lease price. This lessor also indicated that new competitors breaking into market often offered lower rates to attract customers. Typical software leases represented 100% of the appraised value of the software leased.

Collateral Value

Lessors generally saw little or no residual value for software with some residual value in associated hardware and generally looked to the underlying credit to get paid. In marginal credit, the purpose and value of software to borrower might influence credit decision if loss of software would put borrower under intense pressure. These lessors noted that there was a subtle difference between leasing soft costs vs. proprietary software with proprietary software being much more valuable than soft costs. These lessors further noted that some intellectual property may have better value than hard assets because it doesn't depreciate and may in fact have growing value.

Some lessors believed that theoretically there should be a good market for used software because it has no physical depreciation, but that such a market had not fully developed yet because the leasing industry needed more experience in selling repossessed software which would lead to an industry infrastructure for used software. These lessors believed the current difficulty in selling used software partly reflected the newness of software leasing. They noted that in 15 years, software had gone from 10% of the typical software/hardware package to 25% to 100% and that now the reality is that the software is more valuable to customer than hardware which provides a psychological advantage in leasing software. These lessors noted that the key to software leasing was to focus on the mission criticality of the software to the lessee because mission criticality makes its easier to use the software as a stick to the customer in a default situation unlike hardware which is a commodity that depreciates rapidly and can be replaced.

Venture Leasing

Some lessors had leased software in venture leasing arrangements taking options and warrants as part of their compensation. Those with extensive leasing experience to venture capital backed startup companies in various areas of technology development indicated that they typically did a loan with an asset pledge because companies didn't want to sell their intellectual property. Pricing with these types of loans generally utilized junk bond interest rates and warrants. If companies did sell their intellectual property, they typically wanted the right to pay off the lease and buy back the intellectual property. They also noted that often intellectual property has collateral value in venture leasing default situations and can be very valuable.

Intellectual property venture lessors typically started out as hard asset lenders and got into intellectual property as a way of mitigating risk by getting pledges of additional collateral, i.e. intellectual property, to provide protection to loan. In the venture leasing area, these lessors noted that the value of a company is usually in its intellectual property and that as a lessor, one

structures the best deals possible with the risk of losing a lot of money on some deals which is balanced by the homeruns.

One lessor with substantial experience in venture finance indicated that it approaches its deals as a secured lender with warrants rather than as a true lessor even though it evolved into the intellectual property business out of the equipment leasing business. This company utilized a typical loan period of 36 -42 months with mortgage style amortization and no balloon payment at the end with a rate between 600 basis points and 1000 basis points over treasuries and a size range between one and five million dollars and an average outstanding on the portfolio of $1.4 million. Warrants are convertible into preferred convertible stock or common stock within 10 years or within five years if company has IPO. This particular venture lessor had two basic products in its portfolio: 1) an equipment loan (a typical venture lease with a lien on equipment) and 2) a venture loan (a working capital loan typically secured by all assets of borrower including intellectual property).

This venture lessor indicated that patents are often good collateral for its venture loan, but that most of its venture loan customers don't have issued patents because they have not been in business enough time to get a patent (though they may have filed and have a patent pending). The exceptions where patents may be available for collateral were spinoffs from major companies and university spinoffs and startups. As a consequence, this venture lessor focuses on trade secret proprietary technology prior to patent to provide collateral for its loan. The key issue for the lessor in a potential new deal is how valuable is the technology and it uses several questions in its determination. Specifically, it asks: 1) what are the characteristics and market for the technology (i.e. is it a transforming technology? will it last for a while?, is it a unique approach?, what is the quality of technology team?, who are its competitors?, and what is its market lead and defenses?) 2) how large is the market, 3) what is company bringing to the market. These questions support a generalized assessment to address the issue of: does a lien on assets provide sufficient value for payoff of the debt on the downside?

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Sale/Licenseback

This lessor had also looked at buying income streams with patents, but had not pursued this business. They noted that a major risk lies in loss of support of organizations behind the sold patents who may undercut the lessor's ownership with new technology. Alternatively, they noted that monetizing soft assets by sale/licenseback deals may also tie the hands of seller and that many potential sellers may be unwilling to sell patents because it would constrain their future flexibility. This same lessor indicated that corporate constraints on the sale of intellectual property could also apply to the pledging such property.

Recovery in Default

Most lessors had had minimum experience with writeoffs and taking over intellectual property. Typically when writeoffs had occurred there was no taking over and remarketing of software because of its customization unlike repossessed equipment. Instead the general

approach was to use the lessor's ownership as a stick to take control of the asset and then get payment for continued use. Because other copies of copyrighted software are generally available from vendors, lessors generally had determined that software has no resale value and resale is not a second way out. The purpose of leasing of software is not to have secure collateral but rather to meet customer financing needs with leverage over customer in the event of default. Generally, lessors had good recovery experience with customers in Chapter 11 because customers needed the software to operate the business, but poor recovery experience in Chapter 7 because there were no assets to possess and resell. Some lessors noted that while their recovery in Chapter 7 with leased software had been 0 versus some recovery for hardware the recovery on hardware was often less than they expected.

In the venture leasing area, recovery results in a downturn vary widely based on the experience of the last two years. Beginning in early 2000, venture capitalists were allowing companies to die wholesale by sector and in these abandoned sectors venture finance lessors got hammered. Abandoned sectors generally had the least intellectual property. Once venture capitalists finished sector abandonment, they started looking company by company in areas such as telephone switches and optical telecom. In these sectors, venture lessors' recoveries averaged 15-30% with some 100%. Generally, there was no value in used PCs and software licenses, but liens on intellectual property were very valuable. These liens made a big difference where venture capitalists came in and said there is probably some value in the intellectual property, but that the company was overvalued. In these situations the next equity round was generally at lower value with the prior equity investors getting washed out. Creditors generally did better if they had a full collateral package with intellectual property tied up because creditors had more leverage with venture capitalists in down round negotiations. Generally, if a down round occurred, the company went on and creditors were ultimately paid off. An internal study by one lessor of 36 troubled customers showed that in 12 the lessor was paid off by sweeping bank accounts and selling off collateral, in 12 the lessor recovered 15 -30 % of its loan when venture capitalists abandoned the company and in 12 there was a restructuring of the company with down rounds and lessor was able to stay in and recover the full amount of the loan because of intellectual property liens.

Lessons Learned

In terms of the lessons that lessors had learned from their default experience with software, it can be summed up in the quote: "Leasing always is a hybrid product with twin pillars of 1) value of asset and 2) credit quality of borrower. With intellectual property such as software, the quality of the asset is unknown. This is what differentiates intellectual property leasing from equipment leasing." (Henry Frommer, Wells Fargo Leasing, Inc.). More specifically, lessors stated the need to assert control professionally but aggressively in a workout situation with the primary pitfall to avoid being the pitfall of being passive, waiting for bankruptcy court. Lessors emphasized the need to recognize that they were cash flow lenders utilizing sophisticated financial techniques and the need for a clear understanding and agreement with the customer and to stick to their guns in terms of credit criteria. Additional lessons learned were that reselling software requires the right vendor with the right software which is supported by a service

agreement and is in its current version. There also must be an outlet for this used software.

The Future of Intellectual Property Leasing

Most software lessors believed that they could apply their current approach to other intellectual property like patents, but don't because quality credits don't seek this type of financing and no vendors were originating these types of deals. They would be open to thinking about leasing other forms of intellectual property besides software. They noted that they are already moving beyond pure software by including such items as maintenance contracts into leases as a way of increasing profit margins for vendors and insuring that customer has the latest version of software (which increases the probability of some residual value in software because the lack of collateral value of software is partly due to rapid obsolescence).

These lessors generally stated that the future of industry is new and creative products, and that they need new and creative ways to expand portfolio. They further believed that they could do leases on intellectual property such as patents and trademarks, but needed education on how to do them covering such items as structuring lease agreements, documentation, and valuation. They believed that there was lots of flexibility in leasing and that " If you can define it, you can lease it" They noted that such esoteric leasing deals as the leasing of a salt dome gas storage facility, where because of real estate complications the inside of the dome (the nothing/void) was leased, and the leasing of commodities like tin. The key point they made was that leasing required assets that generate cash flow. These lessors believed that the biggest leasing industry barrier to expanding intellectual property leasing was the general culture of financial institutions which typically focuses on historical approaches while intellectual property financing requires looking forward.

Equipment Leasing Association Role

In terms of further education of ELA members about intellectual property leasing, software lessors believed that programs should be provided on the workout processes in software and the differences from equipment leasing workout. In terms of lessors doing intellectual property leases other than copyrighted software, some software lessors bundled in the provision of implementation consulting services in their leases (which might be considered intellectual property) and wondered about enforcement issues and how they might handle them. In terms of intellectual property such as patents, these members wanted education on what it means to have a secured position and how do you sell repossessed patents, noting that you need an exit strategy as a precondition before getting into this business so you know what to do when patent comes back.

Research on Other Participants in Financing Secured by Intellectual Property

In addition to the survey of ELA members, limited research was done during the study on other financial services industry participants outside the leasing industry who have done intellectual property financing.

The Commercial Finance Industry

The commercial finance industry appears to be quite active in this area. For example, asset based lenders such as Congress and Heller are currently quite active in taking liens on patents and other intellectual property such as trademarks as additional collateral. Heller's Executive Vice President John E. Goldthorpe, in May 2000 in an interview for the magazine **Secured Lender** on the future of the commercial finance industry stated that it was a corporate goal to do more patent and trademark-based financing. Evidence of that was their $270 million deal secured partly by patents mentioned earlier.

The activity of the commercial finance industry has been recognized by the ELA membership and that was evidenced at the annual convention in December 2001. In his speech at the convention, Rick Wolfert pointed out that many lessors are starting to diversify their product offerings in that they still have their traditional equipment leasing and finance "plus the ability to finance intangible assets such as software, licenses, bundled services plus real property". There was particularly strong interest among the membership in the commercial finance or ABF panel where Tom Block of Tyco Capital stated: " All asset-based loans are usually senior debt and they're secured with the whole left side of the balance sheet. If you're an asset-based lender, you take the accounts receivable, the inventory, the fixed assets, and the intangible assets."

The Commercial Finance Association (CFA), the professional association of commercial finance companies with 300 members, has recognized the importance of intellectual property to its members. In 2001, it presented a Memorandum on financing issues pertaining to intellectual property to the United Nations Commission on International Trade Law which was considering developing model legislation on security interests in collateral other than receivables. In the Memorandum, the CFA summed up the importance of intellectual property to its members with the statement " Intellectual property financing represents a major form of financing for commercial enterprises in North America". The CFA Memorandum went on to detail the importance of intellectual property financing.

"In both domestic and cross-border transactions, intellectual property represents an extremely important class of collateral for CFA members and other lenders. Because of the rapid progress of technology and the heightened value of information to companies in this "information age", patents, trademarks, copyrights, customer lists, know-how, trade secrets and other forms of intellectual property represent, for many companies, an increasingly important component of the value of such companies. Often a company's intellectual property is its only significant asset or its most valuable asset. Given this circumstance, and the fact that the importance of intellectual property will undoubtedly continue to grow, it is critical that companies be able to obtain financing based on the value of their intellectual property.

CFA members typically utilize intellectual property as collateral in a variety of ways. First, intellectual property often has sufficient independent value to qualify it as primary

collateral for a loan, especially for the growing number of companies in the technology sector. For example, a lender may make a loan to a borrower predicated to solely on the value of the borrower's patents or trademarks. The basic principle with respect to this type of financing is that a lender will only provide such financing to the extent it determines that, if the borrower fails to repay the loan, the lender may look to the intellectual property for repayment. Clear and predictable secured lending laws are critical to enable the lender to make this determination.

Second, a borrower's intellectual property rights frequently represent an intrinsic component of the value of other property of the borrower, such as equipment that has been specially tooled for the production of a patented product, or inventory that has been branded with one of the borrower's trademarks. Such property may be of little or no value to a lender as collateral, or to a subsequent purchaser of the borrower's business, unless the lender or purchaser is able to obtain rights in the associated intellectual property. Secured lending laws that are structured to enable lenders and subsequent purchasers to obtain rights in the related intellectual property in an efficient and cost-effective manner would, in the view of CFA, encourage lenders to make loans predicated upon the full value of the borrower's property."

The critical reason that the commercial finance industry has focused on securing its loans with intellectual property lies in the value of that property in a liquidation situation. In the December 2001 issue of **Secured Lender**, the significance of the potential value of intellectual property in liquidation was pointed out. "In today's knowledge-based economy, a company's intellectual capital may exceed, by two to ten times, the value of its tangible assets."

The Venture Capital Industry

Historically, the venture capital industry has looked solely to the success of companies that it invested in order to recover its investment. This success which allowed a venture capitalist to recover his or her investment was generally defined as an initial public offering (IPO) or the sale of the company. Generally, venture capitalists did not look to recover their investment from the sale of intellectual property owned by companies they invested in. Josh Lerner and Paul Gompers of the Harvard Business School in their book on the venture capital industry **The Money of Invention** state that "soft, intangible assets such as patents, trademarks…….provide little cushion in case a company crashes" because "soft assets rarely have active markets that list their value" in explaining why historically venture capitalists have not tried to recover their investments from the intellectual property of companies that they invested in.

However, the historical approach of the venture capital to intellectual property is changing. The increasing value of intellectual property in a default situation is recognized not only by the leasing industry and the commercial finance industry, but also by the venture capital industry. Discussions with venture capital attorneys as part of this study indicated that venture capitalists, particularly when financing early stage companies, are increasingly utilizing secured convertible notes with liens on all of a company's property (particularly its intellectual property) as their preferred form of financing structure. This reflects the success that some venture capital firms have had in recovering their investment from the intellectual property of failed companies

that they invested in.

Specialized Financial Services Companies

Outside of the leasing industry, the commercial finance industries, and the venture capital industry, research determined that there were a number of participants using quasi-sale/licenseback approaches as ways to utilize patents as financing sources for the owning companies. These approaches generally involved purchasing the rights to licensing royalty income streams associated with patents. Two companies involved in this business are Paul Capital Partners of San Francisco, CA. and Licent Capital of Jericho, New York

Paul Capital Partners acquires private equity and healthcare royalty assets through the secondary market. These investments consist of venture capital, leveraged buyout and mezzanine partnerships interests in operating companies; and royalty interest in healthcare and pharmaceutical products. Founded in 1991 to acquire 40 venture capital and leverage buyout fund interests from The Hillman Company, Paul Capital Partners has acquired interests in approximately 100 funds with underlying investments in over 1,000 individual companies since its founding. The firm's funds made their first purchase of a healthcare royalty interest in 1998 and overall Paul Capital Partners and its affiliated entities have invested in or structured more than $190 million in royalty transactions. The Paul Capital Royalty acquisition fund was established with $300 million of committed capital dedicated to providing liquidity to owners of healthcare royalty interests, including life science companies, universities, other research institutions and inventors. The fund focuses on investment opportunities in therapeutics, devices, platform technologies, and bioinformatics.

Corporate sellers can use the sale of a royalty interest to generate earnings, to fund research, development and marketing activities in an environment where the public and private capital markets may represent unattractive options, or to assist in other business transactions such as in-licensing or acquisitions. Royalty interest sales take an off-balance sheet asset and create cash transforming a risky asset into an immediate positive impact on both the income statement and the balance sheet. Universities and inventors can use the cash for risk management, funding technology transfer activities and capital and operating budgets as well as funding charitable activities.

Licent Capital is a privately held financial company that specializes in providing non-recourse debt financing for licensors of intellectual property. Its financing includes transactions of all sizes, offered either through direct lending by Licent Capital or placement of debt with institutional investors. Financing from Licent Capital delivers upfront cash proceeds based upon a multiple of annual licensing revenues. All forms of licensed intellectual property are financed including: patents (pharmaceuticals, electronics, chemicals, mechanical devices, etc.), copyrights (movies, music, literature, and computer software) and trademarks (entertainment, fashion, sports and corporate and collegiate merchandising). Licent serves a wide variety of clients including corporations in the U.S. and abroad, universities, independent inventors, venture capital investors, and IP management corporations.

Licent will finance revenue producing intellectual property that is identifiable, stable (or growing, relatively homogeneous, and capable of being assigned. Most intellectual property licensed to third parties meet this test. Licent will finance licensing arrangements exclusive with one party or non-exclusive with multiple parties, but requires the licenses be in place for at least two years, have annual cash flows of $1 million or more, and that the cash flows be relatively predictable.

Research on Intellectual Property Valuation, Protection and Marketing Infrastructure

One of the major deterrents on the part of lessors to venture more deeply into intellectual property leasing, particularly intellectual property other than copyrighted software, are difficulties in valuing, protecting, and marketing intellectual property. In the Aberlyn transaction discussed earlier, it was difficulties in this area that resulted in the pilot sale/licenseback transaction being a failure. The Rhomed transaction failed because Aberlyn was unable to recoup its loan through sale of the asset when Rhomed defaulted on its loan. And it is issues of valuation, protection, and marketing that were cited by ELA members as the probable reasons for limited leasing activity in the area of intellectual property other than copyrighted software.

Reflecting this concern, limited research was done as part of this study on the current infrastructure for valuing, protecting and marketing intellectual property. This research indicated that there have been a significant number of developments since Aberlyn's Rhomed transaction that would make it easier to value, protect and market intellectual property collateral, particularly patents today than in 1993 (the time of the Rhomed transaction). The firms behind these developments are beginning to build an infrastructure to facilitate the growth of IP-based financing, particularly patent-based financing..

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Valuation

One of the major issues in utilizing intellectual property for collateral in a financing transaction is valuing that property. In recent years, there has been substantial development of the methodology of valuing intellectual property and in firms that specialize in or provide services valuing intellectual property. In terms of the methodology of valuing intellectual property, a major body of literature has grown up in recent years with a search of the bookstore of Patent Café listing 12 titles on valuation of intellectual property published between 1999 and 2002. Annex I provides a brief summary of different IP valuation techniques for the reader who wants an introduction. New firms in the last few years that provide specialized valuation services for IP include the Financial Valuation Group, the Patent & License Exchange, and M*CAM. The Financial Valuation Group provides valuations of intellectual property and has its own proprietary database of empirical research compiled from publicly available online documents develop through keyword searches, The Patent & License Exchange publishes and distributes IP valuation data, and M*CAM sells a computer system with a patent database to help corporations and investors value patents themselves.

Along with the growth in firms that value intellectual property, there has been a growth in specialized firms assisting corporations in evaluating and managing their patent portfolios and generating licensing revenues from their portfolios or selling portions of their portfolios. Some of the more prominent of these firms (all of which have relatively short operating histories having been founded in 1998 or later) include: Delphion, Acorn Technology , and ipValue. These firms activities range from management consulting to valuation services for IP to finding potential licensees for patents. Their corporate founders and investors include such blue chip business organizations as IBM and Goldman Sachs. In addition to the firms mentioned above, the Big Five accounting firms have all established consulting practices in recent years to assist their clients in valuing and managing intellectual property.

Protection

Protection of intellectual property that is collateral for a loan or lease is first accomplished by the proper legal documentation and agreements with the borrower. These documentation and agreements normally require the efforts of a skilled lawyer (or lawyers) with a background in both intellectual property and financing. Today many major law firms have these skills among their members. In the survey of ELA members discussed earlier a number of law firms and individuals were listed by respondents as providing legal expertise in this area. Additional expertise can be located through the American Intellectual Property Law Association located in Arlington, Virginia which has over 13,000 members specializing in various aspects of intellectual property law. As background for those unfamiliar with the general law, Annex II provides a general introduction to intellectual property law.

Beyond protecting property through the proper legal documents, a lessor can utilize insurance to protect the value of the collateral through insurance. Insurance companies now provide specialized insurance to protect the value of intellectual property rights. A leader in this field is Intellectual Property Insurance Services Corporation headquartered in Louisville, Kentucky. It focuses mainly upon insurance products relating to the legal enforcement of intellectual property rights and has been writing this business for over 10 years with clients ranging from Fortune 500 companies to individual inventors. It provides insurance for both enforcement of IP rights and for defense against infringement suits.

Or alternatively, a lessor could utilize a financial partner to help finance the necessary litigation to enforce patent rights. Patent Enforcement and Royalties Ltd of Toronto, Canada is a Canadian public company that specializes in investing in patents and other intellectual property by financially assisting patent owners to enforce their rights in intellectual property rights enforcement lawsuits. In return for its financial assistance, Patent Enforcement and Royalties Ltd (PEARL for short) takes a share of damage awards in the suit. Since it went public in 1999, PEARL has invested in several suits and won their first suit against Land O'Lakes Inc., a leading dairy corporation.

Marketing

Along with valuing and protecting the intellectual property asset that is collateral for a loan or lease, the lessor faces the problem of marketing the collateral to recover the proceeds of his loan or lease in the event of a default by the borrower. Historically, the market for intellectual property was quite illiquid because of a lack of marketing mechanisms. Organized markets for the resale of used copyrighted software which would be of great value to existing software lessors are lacking. It appears that this situation is partly inherent in the nature of copyrighted software. Reselling standard used copyrighted software such as Microsoft Windows system might violate the Microsoft licensing agreement that is directly with the original individual or corporate user. In addition, large copyrighted software like Oracle databases have limited markets because of the customization to the individual customer by the original vendor. It is not clear that a large, organized, efficient market for the resale of copyrighted software as envisioned by individual respondents to the study will ever develop because of legal and practical constraints on such a market.

However, since the late 1990s this has begun to change with efforts to organize regular markets for the buying and selling of other types of intellectual property, particularly patents One leading example is the Patent & License Exchange organized in 1999 by a group of experienced businessmen and advised by a stellar advisory board including the former head of the U.S. Patent Office and the Vice Chancellor of UCLA. Strategic partners in the exchange include firms like Ernst & Young and Swiss Re. Located in Pasadena, California, the Patent & License Exchange (www.pl-x.com) provides financially oriented intellectual property ("IP") tools and services to help the IP community manage, value, market and monetize their intangible assets including operating an online global exchange. The first client of the Patent & License Exchange was $4.6 billion Eastman Chemical Co. that used the exchange to sell a patent to a German firm.

Conclusions

Generally, the research indicated that intellectual property finance leasing represents a major growth opportunity for the leasing industry. The leasing industry has already begun to participate in the growth potential of intellectual property in its widespread participation in copyrighted software leasing. Individual leasing companies have recognized the potential opportunity in the leasing of other types of intellectual property and are currently experimenting with leases of other types of intellectual property, but primarily in the form of secured loans rather than true leases.

However, the leasing industry lags behind the commercial finance industry in recognizing the scope of the opportunity because of the leasing industry's historical roots in financing tangible, depreciable equipment. Leasing companies have not systematically sought to create new leasing products around intellectual property, but rather evolved into it to 1) meet customer needs and 2) make profitable business deals. Specifically, the leasing industry has grown into large scale leasing of software as an adjunct to its computer hardware leasing activities rather than from a focused effort to apply finance leasing technology to other types of property besides

tangible personal property like equipment. Given the growing importance of intellectual property and intangible assets, relative to tangible assets, the leasing industry needs to work on creative new products that will take advantage of the growth of intellectual property and its increasingly central role in both leading companies and the general economy.

Of the particular forms of intellectual property, patents appear to be particularly well-suited to various finance lease approaches. They resemble equipment in: 1) their clear ownership system without multiple owners 2) their finite, predictable life similar to equipment (including their potentially shorter useful life due to technological obsolescence) and 3) the potential tax benefits from amortization that could be utilized in lease transactions. The minimal current application of finance lease technology to patents coupled with the huge and growing value of patents and their income streams from licensing agreements (when licensed) potentially makes patents a very attractive area for the application of leasing technology. In order for this potential to be realized, the legal process for finance leasing of patents needs to be further developed by additional experimentation and experience with such leases and the infrastructure for valuing and transferring patents needs to be developed more fully. Current information indicates that the infrastructure is being developed more fully, but that the additional experimentation needed to develop the potential in this area has not happened since the Rhomed transaction.

Appendix One

Electronic Survey Questions
Equipment Leasing and Finance Foundation
Intellectual Property Leasing Survey

Questionnaire - Part 1 (To be completed by all ELA members)

Questions:

A. In the past has your firm considered leasing intellectual property, such as copyrighted interests (including copyrighted software) or patents? Yes/No

B. Has your firm participated in the leasing of such intellectual property? Yes/No

C. If your firm has participated in the leasing of intellectual property, what is your annual dollar volume of such leases? Choose one:

1. Under $1 million
2. Between $1 million and $5 million
3. Between $5 million and $10 million
4. Over $10 million

D. If your firm has not participated in the leasing of intellectual property, would your firm consider participating in leasing intellectual property in the future (under the right conditions)? Yes/No

E. If your firm has not participated in the leasing of intellectual property, has your firm or a related entity used intellectual property as collateral for a commercial finance transaction? Yes/No

F. Are you aware of any other firm or individual who has leased intellectual property or used it as collateral for a commercial finance transaction? Yes/No
If yes, who? [Text box]

G.. Do you know professionals (such as attorneys or accountants) who might have experience in structuring leases of intellectual property or securing loans with intellectual property as collateral? Yes/No If yes, who? [Text box]

Questionnaire - Part 2 (For those answering yes to question B in Part I)

Questions:

A. What was the nature of the intellectual property you leased? Select as appropriate:

1. Copyrighted software
2. Other copyrighted material
3. Patents
4. Trademarks
5. Other [Text box]

B. How frequently have you participated in leasing intellectual property? Choose one:

1. Once
2. Between one and ten leases
3. More than ten leases
4. This is firm=s primary or exclusive business

C. If you have leased copyrighted software, how many leases have you done? Choose one:

1. One
2. Between one and ten leases
3. More than ten leases
4. This is firm's primary or exclusive business

D. What is the annual dollar volume of these leases? Choose one:

1. Under $1 million
2. Between $1 million and $5 million
3. Between $5 million and $10 million
4. Over $10 million

E. If you have leased copyrighted material other than software, how many leases have you done? Choose one:

1. One
2. Between one and ten leases
3. More than ten leases

F. What is the annual dollar volume of these leases? Choose one:

1. Under $1 million
2. Between $1 million and $5 million
3. Between $5 million and $10 million
4. Over $10 million

E. If you have leased patents, how many leases have you done? Choose one:

1. One
2. Between one and ten leases
3. More than ten leases

F. What is the annual dollar volume of these leases? Choose one:

1. Under $1 million

2. Between $1 million and $5 million
3. Between $5 million and $10 million
4. Over $10 million

G. If you have leased trademarks, how many leases have you done? Choose one:
1. One
2. Between one and ten leases
3. More than ten leases

H. What is the annual dollar volume of these leases? Choose one:
1.Under $1 million
2. Between $1 million and $5 million
3. Between $5 million and $10 million
4. Over $10 million

I. What methodology have you used to value the intellectual property in the transactions that you have completed? Select as appropriate:
1. Market value
2. Discounted cash flow
3. Replacement cost
4. Other [Text box]

J. How would you characterized your degree of success to date with transactions involving intellectual property? Choose one:
1. Highly successful
2. Somewhat successful
3. Not successful
4. Nightmare-wish I had never tried it

K. What have been your principal problems to date with transactions involving intellectual property? Select as appropriate:
1. Valuing the property to determine the proper amount of the lease
2. Legally structuring the lease to properly protect the lessor
3. Effectively repossessing the asset and selling it in default situations
4. Other [Text box]

L. Are you aware of any reasons that patents or trademarks have not become sources of routine financing transactions like copyrighted software? Yes/No Additional answer as appropriate [Text box]

M. Do you believe that there are steps that can be taken by either or both the Equipment Leasing Association and its individual members to facilitate the use of patents to support lease finance transactions? Yes/No Additional answer as appropriate [Text box] .
N. I am willing to be contacted to answer additional questions by telephone. Yes/No. My contact

information is as follows (name, company, phone, e-mail): [Text box]

Appendix Two

The Equipment Leasing and Finance Foundation
Telephone Questionnaire

The telephone survey addressed the following questions:

1) What is your role in your company in terms of authority and policy? Do you have hands on involvement in the making of leases in terms of negotiating and structuring specific leases or alternatively approving specific leases? How important are intellectual property leases to your company's overall leasing portfolio?

2) How does your company go about making policy on intellectual property leases?.
    a) Credit policy committee, chief credit officer, other?
    b) What criteria do you utilize in determining:
        1) Whether to make them?
        2) How to make them?
3) If your company has not done any intellectual property leases, why not?

4) If your company has done intellectual property leases other than copyrighted software, what induced you to do them?

5) If you have done patent leases, how did you:
    a) Select the patent to be leased?
    b) Determine the appraised value of the patent?
    c) Monitor and protect the patent you leased?

6) If you have done patent leases, what restrictions did you impose in terms of:
    a) Geographic scope of patent (domestic/international)?
    b) Percentage relationship to the rest of your portfolio?
    c) Specific parameters like industry sector, size of company, your knowledge or expertise in the technology or industry?

7) If you have done patent leases, how did you structure them?
    a) Term of lease?
    b) Interest rate on lease?
    c) Amount of lease?
    d) Percent of appraised value of patent?
    e) Residual value (% of estimated value, method of dealing with - lease extension, purchase at termination, etc)?
    f) Did you receive any form of equity kicker for making the lease?
    g) What form did these equity kickers take (stock, warrants, etc.)?

8) If you have done trademark leases, how did you:

a) Select the trademark to be leased?
b) Determine the appraised value of the trademark?
c) Monitor and protect the trademark you leased?

9) If you have done trademark leases, what restrictions did you impose in terms of:

a) Geographic scope of trademark (domestic/international)?
b) Percentage relationship to the rest of your portfolio?
c) Specific parameters like industry sector, size of company, your knowledge or expertise in the technology or industry?

10) If you have done trademark leases, how did you structure them?

a) Term of lease?
b) Interest rate on lease?
c) Amount of lease?
d) Percent of appraised value of trademark?
e) Residual value (% of estimated value, method of dealing with - lease extension, purchase at termination, etc)?
f) Did you receive any form of equity kicker for making the lease?
g) What form did these equity kickers take (stock, warrants, etc.)?

11) What were the key problems you encountered in doing these types of leases: legal, valuation, credit, operational, etc.? Please elaborate.

12) Have you experienced intellectual property lease transactions where you took over the property? If so how did you:

a) reduce your risk during your takeover?
b) manage the asset during ownership?
c) dispose of the asset?

Did you recover your costs and if not how did your percentage of recovery compare to your recovery in equipment leases (with their historically high recovery rate)? Did you have different types of experience with different types of assets?

13) What lessons have you learned from the experience? What are points of policy you would focus on? What would you do or are you doing differently? What are the pitfalls to be avoided?
14) What professionals (such as attorneys or accountants) did you use in structuring your leases of intellectual property?

15) What would be the right conditions for your firm to consider participating in leasing intellectual property other than copyrighted software in the future?
16) What types of issues and subjects should be covered in educating ELA members about intellectual property leasing?

Appendix Three

List of Leasing Executives Interviewed

1) Jesse Crews, President
GATX Capital

2) Brent Lindberg, Senior Vice President
GATX Capital

3) Greg Clark, Vice President
GATX Capital

4) Mark S. Bazrod, President
LPI Software Funding Group, Inc.

5) Henry Frommer , SVP
Wells Fargo Equipment Finance

6) Lowry Fenton
Oracle Credit Corp

7) Robert Necessary, SVP Finance
Solarcom

8) Andrew Thorn, President
Thalman Financial Services

Annex I

Overview of Intellectual Property Methods of Valuation

Introduction

The quality and accuracy of IP valuations is central to the use of IP for loan collateral or to support a lease. This annex will summarize valuation techniques frequently used to value IP.

The Distinction Between Enterprise Value and Asset Value

Within an enterprise, a particular piece of intellectual property such as a trade secret can be extremely valuable helping to create great value for the enterprise, while it may have little value as an asset separated from the enterprise. Conversely, another piece of intellectual property such as a patent may have little value within an enterprise (for example, if the enterprise doesn't have the resources to commercialize the invention protected by the patent), but may have great value as an asset separate from the enterprise (for example, if the enterprise licenses the patent to another business with far more resources to commercialize the invention).

In valuing intellectual property, it is necessary to distinquish between enterprise value and asset value. Enterprise value is usually ongoing and often increases in value over time. For example, the value of the coca-cola formula has increased over time as Coca Cola has been increasingly successful as a business. Asset value is usually finite in time and decreases in value over time. A drug patent has a finite life and its value usually decreases the closer it is to its expiration date at which point a competitor can produce a cheap generic.

Determining the Value of Intellectual Property as Enterprise Value

In determining enterprise value, the key to the value of the intellectual property is the contribution the intellectual property makes to the overall success of the business. Determining this value is a two step process. The first step is to determine the overall enterprise value (for example by looking at its overall market valuation if it is a publicly traded enterprise) and the second is to determine the percent of success of the business that is attributable to the intellectual property. For example, if the intellectual property is deemed to create 20% of the success of the business and the business as an entity is worth $10 million because of its success, then the intellectual property could be calculated to be worth $2 million. This type of valuation is done quite frequently with major drug company when the revenues and profits from a particular patented drug can make up 10% to 20% of the company's profits and revenues and the company's stock price declines accordingly when the patent on the drug approaches expiration. Unfortunately, the value of the intellectual property in this context often can't be extracted in cash by selling the asset separately because the value of the asset is unique to the enterprise in which it creates value, i.e. the revenues and profits associated with the drug are dependent on the marketing muscle the major drug company provides to the drug.

Determining the Value of Intellectual Property as Asset Value

In determining asset value, the key is to separate the asset from the business and then to determine what it is worth to others outside the business. In this context, valuing intellectual property for collateral purposes presents the same types of issues presented by other types of property. As with other types of property such as real estate, intellectual property can be valued in three different ways with these ways ideally generating similar values. These three ways are: 1) the market approach which looks at market comparables resulting from specific transactions, 2) the cost approach which normally is associated with the replacement cost for the asset and 3) the income approach which normally is associated with the discounted present value of future cash flows.

Specific Valuation Techniques

Market Comparables Approach

Generally, the asset value of intellectual property is determined by what someone will pay for that property in the open market either in the form of outright purchase or a licensing agreement with an ongoing revenue stream. This price will be determined by a variety of factors including the availability of buyers with capacity to buy, the uniqueness of property and its suitability for use by other owners than its originators, the degree to which the intellectual property has strong legal protection, and the ability of the intellectual property to generate income for the new owners. To determine what the market value of intellectual property might be, it is necessary to survey the market for that type of asset and assess what the market would be.

Copyrighted property usually is easy to estimate because the material is either being sold in the market or it isn't. A copyrighted book that has been published is generally sold until the market is exhausted and sales figures can give the expected revenues from the book. Similarly, copyrighted software unless new to the market is either selling or it isn't giving an idea of market value.

However, even though conceptually, a market comparables approach should offer a good indication of a patent's value, as it reflects the exchange of value between two parties it is often difficult in valuing patents to find a suitable comparable transaction. The two primary reasons for this are: 1) the lack of disclosed sale or licensure activity and 2) the nature of a patent as a unique invention making comparables often hard to identify. However, there are ways around these problems. For example, in appraising the value of a patent, the appraiser might talk to competitors to see what they would be willing to pay for rights to the patent.

Cost Approach

Historic cost valuation methodology measures the amount of money spent in the

development of the intellectual property at the time it was developed. But unless the intellectual property was developed in the recent past, an historic cost measure tends to be unreliable due to the impact of inflation and the changes that occur in technology over time. In addition, it is not always possible to provide accurate information on the resources spent for such quantification. Replication cost measures the amount of money that would need to be spent in current cost terms in order to develop the intellectual property in exactly the same way and to achieve the same final state as it currently exists. This includes costs incurred on any unsuccessful or inefficient prototypes. Replacement cost measures the amount of money that would need to be spent in current cost terms in order to develop the intellectual property as it currently exists, but excludes the costs relating to unsuccessful or inefficient prototypes.

Income Approach

The income approach focuses on the future cash flows derived from a particular piece of IP. The following variables are needed when using an income approach with IP like a patent:

- An income stream either from licensure of the patent or product sales
- An estimate of the duration of the patent's useful life
- A discount rate

Estimating Future Income

As with all income valuations, in an income approach valuation of intellectual property, the need to accurately forecast future cash flow is of paramount importance Determining the actual or potential income stream when a patent has been licensed to a third party is easy to determine because the contracted for royalty payments determine the future income streams. However, it is difficult to properly determine future income streams associated with the patent when it is used in the owning business to support company product sales. The relief from royalty approach is utilized to determine what this income stream might be. The relief from royalty is based on deprival value theory and looks at the amount that a company would be deprived of, if it did not own the intellectual property in question, but was required to rent it from a third-party. The royalty represents the rental charge, which would be paid to the licensor if this hypothetical arrangement were in place. The ability to determine an appropriate royalty rate depends upon the specific circumstances and requires the identification of suitable comparable transactions and prices involving third parties.

Obtaining a royalty rate is only a first step however. A reliable sales forecast is also required in order to determine the income that flows directly from the intellectual property. This method is useful because market size and expected market share are generally accessible information. One significant drawback of the relief from royalty method is that the rental charge is hypothetical and can't be validated unlike contracted for licensing revenues.

Estimating the Asset's Useful Life

The normal life of a patent is 20 years and a copyright can be 50 years or more. However, the useful life of these types of intellectual property may be substantially less. The useful life of these assets depends on the market demand for the particular item of intellectual property. An Andrew Lloyd Webber song has an extremely long useful life while a new semiconductor chip may have a very short life due to replacement by new chips. The useful life of any piece of intellectual property needs to be determined on a case-by-case basis.

For example, patents expire 20 years after issuance and it is normally assumed that patents have no useful life beyond their expiration date However, this is not always the case. A good example of this is generic pharmaceuticals, where there may still be value in the "name brand" product after a patent has expired and other generics have entered the market. Estimations of useful lives of patents will vary based on the degree of post expiration cash flows assumed. For this reason, most appraisers begin by assuming no value is expected after expiration of the patent and then consider other assumptions.

Determining the Discount Rate

The discount rate applied to a particular piece of intellectual property is determined by the risk of loss of value and income of that property and the general level of interest rates. The higher the risk of loss associated with any projected income stream the higher the discount rate applied to the income stream. Because the discount rate is the risk-free rate of U.S. government bonds plus a premium for the likelihood that the income stream will not happen, a discount rate associated with intellectual property income stream is dependent upon its own set of unique risk factors.

In the patent area, for example, new patents can either make existing technology obsolete or, more likely, allow for another competitor in the same space. If a similar patent is issued the value of the underlying technology will decrease. One key difficulty of the patent process is that it is nearly impossible to know what has been filed with the U.S. Patent and Trademark Office (USPTO). Only issued patents are publicly available information and therefore the risk posed by pending patent claims cannot be easily foreseen. Similarly, an issued patent remains open to attack for invalidity, and it is a common defense for an alleged infringer to assert that the patent is invalid. Typically, patents are challenged on the grounds that someone other than the named inventor invented the claimed invention or that the invention would have been obvious to persons skilled in the relevant technology. Successful challenges can immediately invalidate the patent and corresponding licenses. Proper due diligence should point out potential problems with the underlying technology including overlapping and uncited prior or concurrent claims.

Calculating the Value of the Asset

Under the income approach the actual estimated value of the intellectual property asset can be computed in one of three ways. These are the discounted cash flow approach, the venture

capital valuation approach, or the Real Options Method. All three methods are used by appraisers working in the field currently.

The discounted cash flow approach attempts to determine the value of the IP by estimating the present and future value of cash flows attributable to the IP over its useful life and then discounting those flows with a unique discount rate for that piece of IP reflecting its perceived risk. The benefits of this method are its ease of use and simplicity in comparing values among different patents. A drawback is its failure to capture unique independent risks associated with specific patents with all risks being lumped together and captured in the discount rate used, rather than being broken out and dealt with individually. The Venture Capital valuation technique is a form of the DCF method that uses a fixed non-market based discount rate is used, usually 50 percent (40-60 percent range), with no attempt to create a specific discount rate for a specific piece of IP and its special risks.

The Real Options Method (ROM) recognizes that a patent has intrinsic value based on its projected cash flows discounted at the opportunity cost of capital for the owner of the patent. Additionally, the ROM incorporates the value associated with the uncertainty inherent in a business and the active decision making required for a patent-based business strategy to succeed. The ROM values these items using the Black-Scholes option-pricing model. The model uses a variety of variables including the underlying asset value, an exercise price, time, volatility, a risk-free rate, and dividends.

These variables have special definitions in the case of patents. The underlying asset value is defined as the present value of the property's future cash flows over the life of the asset. The exercise price is defined as the present value of the fixed costs that must be invested to commercialize the product or to maintain the patent's strength. Time is defined as the time until the patent expires. Volatility is defined as the standard deviation of the growth rate of the patent's cash flows. The risk-free rate is defined as the risk-free U.S. Treasury rate over the remaining life of the patent. Dividends are defined as the reduction of the option's duration due to competitive action, unforeseen delays, or other risk factors.

The primary advantage of the ROM is that it accounts for the value associated with the uncertainty of cash flows and the ability to manage the patent investment. The ROM values the stream of cash flows (like the DCF or Venture Capital methods) but accounts for acquired knowledge. This method provides a more complete evaluation than either the DCF or the Venture Capital method, which only capture cash flows and static fixed costs. The primary disadvantage of the ROM is that there is often an inexact mapping of the assumptions underlying option pricing theory and the real option application.

Annex II

A Brief Introduction to Intellectual Property Law

The Categories of Intellectual Property and Their Characteristics

In law, property is a collection or bundle of rights and interests, generally associated with the idea of ownership. Ownership may be in a variety of forms: individually, collectively, or for the benefit of others. There are two main types of property: real property which is land, the buildings, trees, or other items attached to the land and the rights of land ownership and use and personal property which is all other property, tangible or intangible, except real property. Real property is tangible property that is nonmovable.. Tangible personal property is subject to physical possession. It can include almost anything that takes up space and is movable. The standard examples of tangible personal property would include automobiles, furniture, and equipment. Intangible personal property consists of rights in something that lacks physical substance. Examples include contracts, stocks and bonds, computer software, employment rights, and intellectual property (copyrights, patents, trademarks, and trade secrets).

In 1787, the new United States Constitution became the first constitution to recognize that individuals have property rights in the products of their intellects when Article I, Section 8, Clause 8 provided that Congress would have the power "to promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries". In two hundred plus years since the Constitution was enacted, U.S. intellectual property law has grown to be an major body of law reflecting the passage of numerous Federal and state statutes on various aspects of intellectual property and even more numerous Federal and state court cases dealing with various issues of intellectual property law ranging from disputes over ownership to the interpretation of various statutes. Some of the more important statutes that have been passed relating to intellectual property include Federal statutes governing patents in 35 U.S.C. section 2-6 (and the regulations governing them in 37 CFR), Federal statutes governing copyrights including the Copyright Acts of 1909 (which first fully recognized copyrights) and 1976 (which provided property rights in copyrights up to 50 years after the death of the author), and the Federal Trademark Act of 1946 (which provided for Federal registration of trademarks).

The types of intellectual property can be divided into several categories including:

a) Copyrights
b) Patents
c) Trademarks and service marks
d) Trade secrets including business processes, databases, and unpatented, uncopyrighted software.

Each type of intellectual property has unique features and characteristics. Each category will be

discussed below.

Copyrights

A copyright is government protection of creative works of all types including books, magazine and newspaper articles, paintings, music, photographs, movies and videos, and speeches. Business reports, presentations, and slides can all be copyrighted. Even computer software can be copyrighted which is of growing importance as computer software grows in importance.

Copyright law and the protection is derived from Federal statute (the Copyright Act) and court interpretation of that statute. Under U.S. law, "original works of authorship" that are fixed in a tangible form of expression are protected by copyright. This protection occurs automatically when the protected work is first created. A work is defined as being "created" when it is fixed in a copy or a phonorecord for the first time. "Copies" are defined as material objects from which a work can be read or visually perceived either directly with the aid of a machine or device, such as books, manuscripts, sheet music, film, videotape, or microfilm. "Phonorecords" are defined as material objects embodying fixations of sound such as cassette tapes, CD's, or LP's. A song can be fixed in sheet music ("copies") or in phonograph disks ("phonorecords"), or both.

The major broad categories of intellectual property generally copyrightable include:

1) literary works
2) musical works, including any accompanying words
3) dramatic works, including any accompanying music
4) pantomines and choreographic works
5) pictorial, graphic, and sculptural works
6) motion pictures and other audiovisual works
7) sound recordings
8) architectural works

These categories are viewed by the U.S. copyright office and court system as being defined broadly. For example, computer programs and most "compilations" are registerable as "literary works" while maps and architectural plans are registerable as "pictorial, graphic, and sculptural works".

A copyright protects the form of the work, not the actual ideas contained in the work. Ideas, procedures, methods, systems, processes, concepts, principles, discoveries, or devices (as distinquished from a description, explaination, or illustration) are not copyrightable. In addition, under the statute, several other categories of material are generally not eligible for protection. These include:

o Works that have not been fixed in a tangible form of expression (such as choreographic works that have not been notated or recorded, or improvisional speeches that have not

been written or recorded).

o Titles, names, short phrases, and slogans; familiar symbols and designs; mere variations of typographic ornamentation, lettering, or coloring; mere listings of ingredients or contents.

o Works consisting entirely of information that is common property and containing no original authorship such as height and weight charts and lists or tables taken from public documents or other common sources.

Under the Copyright Act, the owner of the copyright generally has the exclusive right:

o To reproduce the copyrighted work in copies or phonorecords

o To prepare derivative works based upon the copyrighted work

o To distribute copies or phonorecords of the copyrighted work to the public by sale or other transfer of ownership, or by rental, lease, or lending

o To perform the copyrighted work publicly, in the case of literary, musical, dramatic, and choreographic works, pantomines, and motion pictures and other audiovisual works, and

o To display the copyrighted work publicly, in the case of literary, musical, dramatic, and choreographic works, pantomines, and pictorial, graphic, or sculptural works, including the individual images of a motion picture or other audiovisual work.

The owner also has the right to authorize others to do the above.

A copyright can be obtained by the appropriate statement on the item being copyrighted. Copyright protection is quite long - the life of the author plus fifty years for an individual and seventy-five to a hundred years for a company. Though it is not essential for copyright protection, registering the copyright with the U.S. Copyright Office of The Library of Congress will protect against innocent infringement of the copyright and assist in collecting possible financial damages for infringement.

As indicated earlier, computer software can be copyrighted. Though some software was copyrighted under existing copyright law as early as 1968, computer software was specifically dealt with in copyright law in 1980 with the passage of the Federal Computer Software Act. Within four years of the the law's passage, the U.S. Copyright Office was registering 100 computer programs a week and the volume has steadily grown since then. In 1984, Congress expanded the copyright protection for computer related activities when it passed the Semiconductor Chip Protection Act (SPCA) which provided 10-year copyright protection for the masks used in producing semiconductor chips, the design of which masks often involves huge

sums of money. All material on the Internet is subject to copyright law. As the Internet has grown increasingly important in the economy, the legal ownership of the content on a website can be significant to a company and provide an asset that can be bought and sold.

Unlike patents, U.S. copyrights have international value. Commencing in 1891, the U.S. Government has negotiated a series of bilateral copyright treaties as well as been a signatory to several multilateral copyright conventions including the Buenos Aires Convention of 1911, the Universal Copyright Convention of 1955, and the Geneva Phonogram Convention of 1974. Currently, U.S. copyrights have reciprocal protection in over 80 foreign countries.

A copyright is a personal property right which is governed by the various state laws and regulation that govern the ownership, inheritance, or transfer of personal property. Because a copyright is personal property, its ownership may be transferred. Any or all of the exclusive rights, or any subdivision of those rights, of the copyright owner may be transferred, but the transfer of exclusive rights is not valid unless that transfer is in righting and signed by the owner of the rights conveyed or his duly authorized agent. Transfer of a right on a nonexclusive basis does not require a written agreement. A copyright may also be conveyed by operation of law and may be bequeathed by will or pass as personal property by the applicable laws of intestate succession.

Transfer of copyright are normally made by contract and the form of contract follows general contract law. The Copyright Act does provide for the recordation in the Copyright Office of transfer of copyright ownership. Although recording the transfer in the Copyright Office is not necessary for a valid transfer, it provide some legal protection against the claims of third parties.

Patents

Historically, the concept of patent protection goes back to the Greeks. In the U.S., patent protection goes back to the earliest days of American history, building on a system of patent protection that had been developed in England during the reign of Elizabeth I. In 1641, the colony of Massachusetts granted Samuel Winslow the first patent in the Western Hemisphere for his invention of a process of manufacturing salt. Believing that invention was a key to economic and human progress, the Founding Fathers were very active in encouraging the development of the patent system. Both George Washington and Thomas Jefferson were ardent exponents of patent protection as a way of encouraging invention. In fact, George Washington and Thomas Jefferson in 1790 both signed the first U.S. patent which was granted to Samuel Hopkins of Vermont for an improved process to make potash. At that time, Thomas Jefferson served as the first head of the U.S. Patent Office in addition to his responsibilities as Secretary of State.

A patent is one of the most valuable forms of government protection for intellectual property. A patent is granted in the U.S. by the United States Patent and Trademark Office of the Federal government. Under the U.S. statutes governing patents, a patent can be granted for product inventions, chemical formulas, and manufacturing processes determined by the U.S.

Patent and Trademark Office to be novel and unobvious. The purpose of the patent process is to encourage invention in the United States by providing legal protection for inventions.

The essence of a patent is a limited economic monopoly sanctioned by law. A U.S. patent gives the patent holder the right to exclude others from making, using, and selling the covered product or process for a period of twenty years. Patents cannot be renewed. Once a patent lapses after twenty years, the invention enters the public domain. This means that anyone can make, use or sell the invention without obtaining a license from the inventor. However, it is possible for lapsed patents to be combined or added to in such a way as to create a new, patentable invention. The limited economic monopoly allows the holder of the patent to avoid competition and reap monopoly profits during the period of the patent.

A patent also gives the holder of a patent the right to sell its rights in the patent to others in exchange for a fixed amount or some form of royalty. The sale of patent rights may be an outright sale. This usually occurs when the inventor does not wish to go into business with the patent because of the business expertise or capital required. If the inventor does wish to utilize the patent in business but also to gain additional revenue, he may choose to license the patent to others in return for royalites. Licenses can take a wide variety of forms depending on the desires of the inventor and the licensee.

A patent is territorial in nature in that a U.S. patent only provides a monopoly in the United States, its territory and its possessions. For protection outside the United States, the patent holder must obtain a patent in foreign countries where they wish protection. Generally, foreign patent processes are similar to the United States. In Europe, filing patents in individual countries can be avoided by filing an application with the European patent office.

Obtaining a patent is not an easy process. Filing for a patent requires a detailed application that includes a written technical description of the invention including drawings and one or more "claims" that lay out the specific features and characteristics believed by the inventor to be patentable. It should be noted that filing for a patent does not require building an actual model of the patent.

Once a patent application is filed with the Patent Office, the application is reviewed by a patent examiner to determine if the invention meets the three principal requirments to be patentable. These are:

1) The invention is useful.

2) The invention has not been previously available to the public.

3) The invention must be sufficiently different from what has been used or described before that it is "not obvious" to a person having ordinary skill in the related area of technology.

The third requirement is the critical requirement in most patent applications and the most difficult one to fulfill. It often takes two to three years before a patent application is approved reflecting the research required by the patent examiner to confirm the third point.

Even when a patent is granted, it is not 100% protection of the invention because the patent can be invalidated at a later date. Typically, invalidation occurs because of the existence of a prior technology which the patent examiner missed in his or her routine examination of patent office files, but which is brought to light in a patent infringement law suit. The possibility of a prior technology being missed by a patent examiner is real because the prior technology does not have to be documented in English and does not to be available in the United States as long as it is available in a readily available in a foreign country.

Trademarks and Servicemarks

A trademark includes a product company's distinctive word, letter, number, picture, or symbol or combination of word, letter, number, picture or symbol that is a valuable form of graphic identification of a company or its product. A servicemark is a service company's word or symbol that is a valuable form of graphic identification of a company or its product. Other related terms for marks include certification marks and collective marks. Certification marks are used to distinquish those who judge product quality and collective marks are used to distinquish group members responsible for making a product.

Trademarks and servicemarks are protected by a combination of Federal statute and state statute and case law.The law of trademarks and servicemarks is meant to keep competitors from fraudulently "cashing in" on the hardearned goodwill and reputation of a business's products or services.

Though not required for protection, both trademarks and servicemarks can be registered with the United States Patent and Trademark Office to protect them from unauthorized use. Under the Lanham Act, marks must be used in interstate commerce to qualify for registration. If approved, a trademark registration lasts ten years from first use and can be renewed for any number of additional 10 year periods.

If a mark is considered distinctive by the Trademark Office, it will be placed on their Principal Register. If it is not considered distinctive, it may qualify for the Supplemental Register. Placement on the Principal Register serves as notice throughout the U.S. that the mark is already owned. In the event of a lawsuit, any mark on the Principal Register is presumed to be valid. If the mark remains on the Principal Register for five years, its ownership may achieve incontestable status.

To remain protected, a trade symbol must not lapse from disuse and must remain associated with a business or service. The trademark also loses its protected status if it becomes a generic term. A trademark is considered generic and not entitled to protection if is understood to refer to the product or service itself rather than as a brandname. Some former trademarks that

have become generic from common public use and which have lost their protected status include escalator, aspirin, cellophane and thermos. Similarly, a mark that is merely descriptive of a product or service is accorded little if any protection. The stronger and more distinctive a mark (i.e. Exxon), the more entitled it is to protection.

The basic issue in all disputes involving protection of marks is whether one business has the right to exclusive use of the mark. Whether a court will grant exclusive use of a mark in the event of a dispute depends on a number of factors including whether the mark is: 1) strongly descriptive or distinctive 2) who first used the mark 3) whether, when and by whom the mark was registered under the Lanham Act 4) whether the business seeking to use the mark knew of of the mark's prior use by the business seeking exclusive right to the mark and 5) whether consumers would be confused if both parties to the dispute were allowed to use the mark.

Trade Secrets: General

Much of the value of many businesses lies in their proprietary information and knowledge that gives their products and services value in the marketplace. This proprietary information and knowledge can constitute trade secrets which are a form of intellectual property subject to legal protection. Trade secrets can include formulas, processes or methods of operation used in the production of a good or service, patterns, physical devices, ideas, and compilations of information. More broadly, information that is not generally known in the business community and which gives its owner a competitive advantage is generally considered a trade secret or proprietary business information. For example, customer lists can be classified as a trade secret.

A trade secret is generally considered to be property that can be owned and is protected under the law against wrongful acquisition by others. Trade secrets have legal protection as long as significant effort is made to keep them secret. However, if the proper steps are not taken to keep valuable information secret, courts will generally rule that anyone who innocently learns of the information is entitled to use it.

Information about the operation of a specific business can qualify as a trade secret if it gives the business a competitive advantage and cannot be independently developed with little difficulty. Examples of the types of information that can qualify for trade secret protection include:

o Information concerning the characteristics of customers

o Information relevant to the cost and pricing of goods

o Sources of supply (especially if disclosure would reveal the nature of a secret ingredient)

o books and records of the business

o mailing lists, customer lists and other sales and marketing information

o information regarding new business opportunities

o information regarding the effectiveness and performance of personnel, distributers, suppliers, etc.

This list is not exhaustive of the type of business information that can qualify for trade secret protection, but it is intended to be representative.

In determining whether business information qualifies for trade secret protection, courts evaluate a number of factors including:

o the extent to which information is known outside a particular business entity

o the extent to which it is known by employees and others involved in the business

o the extent to which measures have been taken to guard the secrecy of the information

o the value of the information to the business

o the difficulty with which the information can be properly acquired or duplicated independently by others

There is no sharp definition of when business information is or is not a trade secret. Rather, it is a subjective judgement by a court when a dispute occurs.

If the owner makes reasonable efforts to protect trade secrets including proprietary information, the courts will generally protect the owner in the following situations: 1) disclosure by employees (current and former) in violation of their duty of trust toward their employer 2) disclosures by employees (current and former) in violation of a confidentiality agreement entered into with their employer 3) disclosures by any persons owing an implied duty to the employer not to make such a disclosure 4) disclosures by persons who have signed non-disclosure agreements with the owner promising not to disclose the information 5) industrial espionage and 6) the use of wrongfully acquired trade secrets by a competitor.

Unlike patents and copyrights, trade secret protection is for eternity as long as the effort is made to keep them secret. However, like patents, trade secrets can be licensed to other organizations. However, unlike patents, trade secrets are not protected from duplication of the process or approach if it is done independently of the company with the trade secret.

Trade secrets legal issues most often arise in the context of employment. Even after the termination of a job, employees owe their employer a duty of loyalty not to disclose trade

secrets. Though this duty may be explicitly layed out in a written contract of employment, it exist even in the absense of a written contract because there is a general duty of nondisclosure implicit in any employment relationship. Generally speaking, any trade secret developed by an employee in the course of employment belongs to the employer. However, trade secrets can belong to an employee if the secret is developed by an employee on his own time and with his own equipment.

In the U.S., trade secret law is basically state common law (i.e. law developed by a series of court decisions) as opposed to Federal or state statutory law. A model statute called the Uniform Trade Secret Protection Act has been developed for the purpose of standardizing trade secret law in all fifty states. At present, only California and a handful of states have adopted the statute so specific trade secret law still varies from state to state. It should also be noted that because trade secret law is state law and not Federal law, any information or item potentially subject to either Federal copyright or patent protection is also potentially a trade secret. So, from the time someone gets an idea, the potential for a trade secret exists. The determination that a trade secret exists is dependent on whether the idea might give its creator some competitive advantage and whether it is treated as a secret.

A critical concept in trade secret law is the concept of public domain. When intellectual property enters the public domain, it loses its status as protectable property. Intellectual property in the public domain may be used by anyone without permission from its inventor, originator, author, or former owner. Intellectual property is considered to be in the public domain when: 1) it is not entitled to protection in the first place (for example, work funded by the Federal Government) 2) the owner fails to take the proper steps to protect his property (for example, publishing a book without a proper copyright notice) or 3) the owner does an illegal act in regards to the property (such as using a patent in violation of anti-trust laws).

Information cannot qualify as a trade secret if it is in the public domain. Information is considered in the public domain once the public has obtained knowledge of it through proper means unless the information and its expression is protected under copyright or patent laws. Generally, any information contained in a public record cannot qualify as a trade secret. Public records include documents, tapes, disks, or other mediums that are open to inspection by the public. It should be noted, however, that company information contained in documents requested to be filed by state and federal governments is often specifically exempted from laws allowing disclosure of government information to the public in order to protect trade secrets included in such information.

Because trade secrets are property, they can be sold to others or used to generate income. This is most frequently done through the process of licensing in which the owner of the trade secret gives another person or entity authorization to use the trade secret for a specific purpose for a defined period of time.

Trade Secrets: Formulas, Business Processes, and Designs

A formula is any combination of ingredients that results in a particular product. Some examples of the many formulas for products that have been protected as trade secrets include formulas for softdrinks, butter flavoring, industrial solvents, floor wax, and rat poison.

A process is a series of steps that leads to a particular result. Some examples of the many business processes that have been protected as trade secrets include processes for making chocolate powder, cyclamates, and tobacco flavoring, processes for photographic development and silk screening, and the centrifugal process for blood plasma fractionation.

Patterns and designs can also qualify as trade secrets. Some examples of the types of patterns and designs that have been protected as trade secrets include advanced design plans for a new minicomputer, designs for electronic circuitry, and schematic plans for an innovative metal door frame.

A major issue with the protection of formula, process and design trade secret protection is the issue of reverse engineering. Reverse engineering involves examining a product or service to figure out the ideas and methods involved in its creation and structure. Essentially reverse engineering consists of taking apart and reducing a product or device into its constituent parts and concepts. Reverse engineering is a critical issue for trade secrets because of the rule in trade secret law that any knowledge gained about an item through the process of legitimate reverse engineering is in the public domain and not subject to trade secret protection.

Reverse engineering is particularly critical in the context of physical devices such as tools, products, and components. Such devices can be easily protected when they are used solely in manufacturing or production processes under the control of the trade secret owner. But such devices are subject to reverse engineering (and loss of trade secret protection) if the devices are widely distributed as in the case of advanced machinery that is sold in the general marketplace.

Trade Secret: Databases

Today, one of the largest assets of American business and probably the fastest growing is the data stored in its computers. Recently, it was estimated that the information content of American business was doubling every 15 months. Much of this information contained in computer databases may be subject to trade secret protection in the right circumstances.

A general definition of a database is any information organized in a manner to facilitate its retrieval in a meaningful form. Under this definition, an encyclopedia is a database because it is organized alphabetically and stores information that can be retrieved by subject. However, the term database is most generally used to refer to computer databases where information is organized in such a way that it can be quickly retrieved, either separately or in combination with others, from a computer.

Computerized databases fall under the rules of compilation of information as trade secrets. Trade secret law recognizes that information that is not itself new or secret can be

manipulated and stored in innovative ways and that this innovative way of storage and manipulation will provide a business with a competitive advantage, thereby qualifying the stored information as a trade secret. A classic example of this type of innovative compilation would be a eyeglasses manufacturer who uses census data in an innovative way to construct a mailing list for elderly Americans.

Trade Secret: Unpatented, Uncopyrighted Proprietary Software

Along with databases, unpatented proprietary software represents a huge investment by American business. Many businesses whole value is tied up in the capabilities of their software. As indicated above, computer software can be copyrighted, but it is more difficult to patent. A patent grants a monopoly on the type of software, a copyright only protects against copying. There is no infringement of the copyright if another person develops the same or quite similar program. As a consequence, much of the software that powers American business is primarily protected as a trade secret and must meet the legal requirements for trade secret protection.

During its development and testing stage, a new computer program will almost always qualify for trade secret status. From its initial conception, a computer program represent "ideas" and "information" that can give their owner a competitive advantage if they are kept secret. Once a program is fixed in a tangible medium of expression such as tape, disk or paper, it is both a trade secret and subject to the protection of copyright laws. These dual protections continue if the program is later distributed if the appropriate precautions are taken. One way to protect the program is to require all purchasers of the software to sign a license agreement forbidding disclosure of trade secrets.

Licensing

General

A license is a contract in which the licensor agrees not to enforce its legal rights against the licensee and is the mechanism by which the owners of most intellectual property rights exploit these rights commercially. Though it doesn't have to, most license agreements involve intellectual property rights like patents, copyrights, trademarks, and trade secrets and a license is generally required when use of content would violate intellectual property rights.

A license does not transfer ownership of the property licensed to the licensee. Instead the licensee merely obtains the right to use the article, subject to the restrictions imposed by the license. This is different from a sale where title to a particular piece of property is transferred to the buyer who is free to use the property in any manner he or she chooses without restrictions.

Like other contracts, a good license is normally completed in written form and covers a number of topics. Specifically, these topics normally include:

1) the subject matter of the license
2) the exclusivity of the license
3) the scope of rights granted under the license
4) restrictions on use of the property licensed
5) rights of other parties other than licensor and licensee
6) license fees and royalties payable to the licensor
7) credits to the licensor
8) delivery of the licensed property
9) rights of assignment of the license
10) licensor warranties and indemnification provisions
11) limitation of licensor liability

These topics will be discussed in order.

Subject Matter and Scope

The subject matter of the license should be clearly identified and described in the license. This identification needs to be specific enough so that a judge in a future dispute can determine what specific intellectual property has actually been licensed. As in any contract, the failure to clarify the basic subject of the contract,(i.e. of the license) can invalidate it.

In the majority of content licenses, the owner of the content is free to license the same content to others thereby increasing his or her income. In some cases, the licensee may wish to have an exclusive license. In these situations, the licensee normally pays a higher royalty to the licensor and is required to give performance guarantees that will ensure a minimum royalty income to the licensor.

In addition to clearly defining the license's subject matter, the license should clearly define the scope of the license, i.e. exactly what the licensee may do with the material covered by the license. Generally, the licensee will only want to acquire and pay for those rights necessary to support his or her business activity and avoid acquiring and paying for rights that are of no value to the business activity. To clarify its scope, a license agreement will generally have provisions defining both what activities are permitted under the license and what activities are prohibited. Some of the rights that may be included in the scope of the license include: the right to copy, right to adapt, the right to distribute, the right to publicly perform, the right to transmit, the right to publicly display, the right to make and use, the right to sell, offer for sale, and import, and the right to sublicense.

Restrictions

The provisions restricting the use of the license most often fall into three categories: limitations on the media to be employed under the license, limitations on the geographic territory of the license, and limitations on the term of the license. Limitations on the media to be

employed involve restricting the use of content to a particular medium such as print, film, videotape, broadcast television, or cable television. The author of a best selling novel will often sell separate rights for each medium in which the material is used (i.e. book publishing rights, film rights, and television rights) in order to maximize his or her revenue from the effort of writing the novel. Geographic limitations on licenses are increasingly important in the world of global business. Licenses are often given for a particular geographic area such as the United States which does not give the licensee the ability to exploit the license oversees. The majority of licenses are for a specific term and the licensee cannot use the material of the license after the term has expired. Of particular significance to the licensee are provisions for early termination of the license in the event of default under the terms of the license.

In the area of copyright, obtaining a license to use content from the copyright holder may be inadequate to protect the licensee. Other persons may have contractually reserved some rights in the content or may have rights of publicity or privacy in regards to the content. In this situation, permission from these persons to use the content may also be required for the license to be effective. The license agreement should clarify whether the licensor or licensee has to obtain the permission of these other parties and who will pay any fees involved.

License Fees and Royalties

One of the most important, if not the most important, part of any license agreement is the provision relating to license fees and royalties. How these are calculated may vary widely, but usually require a easily quantifiable approach such as a flat rate for a unit of time, or a flat rate for a number of copies or a percentage of the licensee's gross receipts. The particular method used usually depends on the nature of the property licensed and the industry in which the licensee is located which in turn usually determine which approach can be applied with a degree of certainty as the royalty owed.

Credits, Assignment and Other Issues

Often the copyright holder will want to be given credit for originally developing the material in the work that is the subject of the license (an example would be a novelist receiving credit in the movie that is derived from the novel). The license will often specify the wording, location, size and prominence of display of the credit. In certain medium, particular the Internet, these requirements can create significant problems and are often the subject of careful negotiation.

Rights to assign a license can be a very sensitive subject for both a licensor and a licensee. In an assignment, one party to a contract transfers all its rights and obligations to someone else. Licensees usually want the maximum ability to assign the rights they have purchased because this provides them with a way to recover or increase the money they invested in the license. Licensors usually want to restrict assignment of license rights both to control the use of the intellectual property and to insure that any additional revenue from the property comes to the licensors and not the licensee. To ensure their interests are protected, licensors often insist

on a clause in the license prohibiting or limiting the licensee's rights to transfer. Such restrictions can greatly affect the value of the license if used as collateral for a loan.

Licensees normally want the licensor to warrant that it has the power, right and authority to grant the license and that the license will not infringe the rights of a third party. In addition to warranties in regards to third parties, most licensees also want the licensor to indemnify them for the licensee's legal fees and other costs in defending third party claims.

Just as licensees want to protect themselves from liabilities from infringing on the rights of third parties, licensors also want to limit their liability to licensees. Often, licensors seek to restrict the amount and type of damages that can be claimed and the time in which those damages may be claimed. This is particularly true in the case of software licensees.

Though a license normally arises through a written agreement between the parties, it may arise from the conduct of the parties or the operation of statutory and case law. For example, an implied license to use copyrighted work occurs when a viewer at home tapes a copyrighted movie from television for later viewing. For each major intellectual property right there are a number of situation in which the intellectual property may be used without the user being required to have a license from the owner. The biggest area of implied license is copyrighted material that parties may have the right to use without an express license under several legal basis. These include: necessity, custom and use and functionality, and copyright owner conduct.

An implied license arises out of necessity when unlicensed copying of copyrighted work occurs as a natural outcome of an action of the author. Sending an e-mail message over the Internet involves numerous acts of copying that occur automatically as the message passes through various aspects of the network. An implied license for that copying arises because of the necessity for that license to achieve the author's intent of sending that message over the Internet. An implied license from custom and usage and functionality is the situation of home taping of T.V. movies discussed above. In the Sony Betamax case, the U.S. Supreme ruled that an implied license for the taping of movies from television was derived from the common practice of individuals taping movies from their T.V. for later viewing so that they could see the movies which the networks had intended for them to see. This custom and usage and functionality of home video taping was consistent with the intent of the networks when they put the movies on the air. An implied license by the copyright owner's conduct occurs when the owner by his or her actions gives an invitation to make a copy. Posting a file on a website for downloading is an example of conduct that clearly is an invitation to make a copy.

The Security Process for Intellectual Property

Article Nine of the U.C.C.

Article 9 of the Uniform Commercial Code (UCC) is the basic law covering secured transactions throughout the United States. Article 9 of the UCC states that any of the following types of property can be collateral (i.e. property subject to a security interest):

o Goods (including equipment and inventory)

o Documents evincing rights (eg. commercial paper, securities, bills of lading, receipts)

o Accounts receivable

o Most other personal property or fixtures

Intellectual property like patents, trademarks, and copyrights fall in the realm of other personal property.

Creating a security interest in collateral is a well-defined process under the Uniform Commercial Code. There are two parts to this process. The first is the creation of a security interest between the debtor and creditor and its "attachment" to the secured property (the collateral), and the second part is the perfection of the security interest to make it effective against third parties.

To attach a security interest to the secured property, three steps must be satisfied:

o A written agreement (the "security agreement") sets forth a security interest, describes the collateral, and is signed by the debtor.

o Value is given by the secured party to the debtor.

o The debtor has rights in the collateral.

Assuming the value given is the loan and the borrower does own the property being taken as collateral, the key step in the development of the security interest in the intangible personal property is the security agreement.

Perfection gives the secured party priority over other parties seeking to attach or otherwise use the collateral. There are three methods for obtaining perfection. These are:

o Possession

o Attachment

o The filing of a financial statement.

Of the three, the most common is the filing of a financial statement which is also the most appropriate method for perfecting a security interest in most forms of intellectual property. Filing a financing statement is the necessary for perfection if possession is not the required method of perfection; if the secured party does not in fact have possession and if the transaction

does not in fact involve automatic perfection (i.e. perfection by attachment).

For a security interest to be perfected with a financing statement, the financing statement must be filed in the appropriate location. It is the duty of the secured party to file this statement. There are three basic alternatives under the U.C.C. where the statement can be filed with each state having chosen one of the three alternatives for that state when the U.C.C. was incorporated in state law. These alternatives are:

- o A central filing with a state office, except for local filings for timber, minerals, and some fixture collateral

- o Local filings for farm or consumer goods, timbers, minerals, and some fixtures, and some central filings for other collateral.

- o A combination of the requirements of second alternative above (i.e. local filings for farm, etc.) plus a requirement of local filing in addition to a central filing with a state office if the debtor has a place of business in just one county or has no in-state place of business in the state but resides in the state. The local filing should be in the county where the debtor resides or where the collateral is located.

About half the states have the second alternative listed above with the others split between the first and the third. If there is any doubt as where to file, to be safe the financing statement should be filed in every possible county and state as the cost is usually nominal.

It is important not to confuse the financing statment with the security agreement. A financing statement is not a substitute for a security agreement which is the controlling document. The financing statement simply furnishes the minimal information needed to put other parties on notice of a security agreement. The central agreement between the borrower and the lender is the security agreement which defines the collateral interest. A financing statement filing is generally good for five years unless it indicates a shorter maturity date. An unlimited number of five year extensions may be filed, and the secured party does not need to obtain the debtor's signature.

Special Intellectual Property Issues

Intellectual property differs from other types of property in regards to security agreements in the difficulty in sometimes adequately describing the property being secured. For example, a database can have a great value but for security purposes it must be adequately defined. For the lender, security agreements describing databases (and therefore the lien being created) should be as broad as possible covering both the databases and the hardware and software associated with the databases.

It is very important that the description in both the security agreement and the financing statement should meet certain requirements. First, both should very clearly define the databases

in which the security agreement is being taken. Second, the security agreement should cover any databases or additional data created in the future. And third, the databases should not be impaired by any licenses or restrictions on use from underlying suppliers of information that would make the databases difficult to sell if they were seized under the lien.

Completing security agreements and filing financing statements is a specialized legal process normally carried out by an attorney who specializes in this type of work. A lender should not seek to create and perfect a security agreement in intellectual property without detailed assistance from an attorney who has both a good knowledge of intellectual property and the creation of security interests under the U.C.C..

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