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THE CORPORATION'S VALUABLE
ASSETS: IP RIGHTS UNDER SOX

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In 2002, Congress passed and the President signed into law the U.S. Public Company Accounting Reform and Investor Protection Act, also known as the Sarbanes-Oxley Act.¹ Introduced in the wake of accounting/reporting scandals involving Enron, Arthur Andersen, WorldCom and Global Crossing, the Act is designed to bring about greater executive oversight of financial reporting by publicly-traded companies, requiring auditable business processes, greater financial transparency and stronger internal controls related to financial reporting. Since 2002, volumes have been written about Sarbanes-Oxley compliance, as regulators, public companies and auditors struggle to understand its broad requirements and, in turn, develop rules and practices for practical implementation. One of the most vague, yet most discussed, aspects of Sarbanes-Oxley (or SOX, as it has affectionately come to be known) is its impact in forcing public companies to more accurately inventory, value and protect intellectual property that may materially impact financial performance. Although there is no explicit provision of Sarbanes-Oxley that requires public companies to treat intellectual property differently than they did pre-SOX, there are four primary provisions—dealing with “certifications” and “internal controls”—that, in tandem, have led most observers, commentators, auditors and accounting firms to conclude that SOX requires significant changes in the way public companies manage their intellectual property.

I. THE INTELLECTUAL PROPERTY BACKDROP

Before delving into SOX’s approach to “the solution” as it relates to IP management, it is worthwhile to pause a moment and acknowledge “the problem.” Most experts agree that intellectual property accounts for a significant percentage of corporate-owned assets. The growing number of patent infringement lawsuits is anecdotal evidence of the importance of intellectual property assets in the information economy. From 1991 to 2001, the number of patent infringement lawsuits filed annually increased every year, growing from approximately 1200 to more than 2500. Other evidence also supports the view that non-tangible, intellectual property assets are increasing in significance. For instance, trade secrets are estimated to comprise 80% of the assets of “New Economy” companies.² It

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1. The Act is codified in titles 11, 15, 18, 28, and 29 of the United States Code. Citations to the specific sections of the U.S. Code referenced will be provided below.
 2. Halligan, Mark. *Duty to identify, protect trade secrets has arisen: Sarbanes-Oxley requires internal controls over how they are valued*. National Law Journal, August 29, 2005.

has also been estimated that the value of trade secret information held by US publicly-traded companies alone is more than \$5 trillion (not to mention other types of IP).³ Yet, American companies are woefully lacking when it comes to identifying, tracking, protecting and reporting the value of their intellectual property. According to Accenture's 2003 survey of 120 senior executives, 49% of public companies said they relied *primarily* on intangible assets to create shareholder value, but only 5% of companies have vigorous procedures for measuring the performance of such assets.⁴ Moreover, the cost to American companies of foreign and domestic espionage and other misappropriation and infringement of intellectual property is estimated at \$300 billion per year and rising.⁵ Much of the reason for the loss of intellectual property assets is a simple failure to properly inventory those assets in the first place. If a company does not identify what assets it has, it will have a much harder time protecting those assets.

SOX's impact on these issues comes mostly in the form of encouraging more robust valuation criteria. There are at least three purposes for which companies assign valuations to IP—litigation (to determine damages from unauthorized use by a third-party); transactions (usually determining the value of property to be sold or bought); and, financial reporting. Traditionally, IP assets have been extremely difficult to value. Although it is perhaps an easier proposition to value particular assets in the context of a specific infringement claim or as part of a distinct transaction, valuing all IP assets as they relate to the earnings of an entire enterprise is much more complex. SOX itself does nothing to relieve that complexity. However, before SOX, the difficulty of assigning value to IP assets often led companies to take the path of least resistance when it came to valuing these important assets, especially as it related to financial reporting. Often, the value of intangible assets held by public companies was simply included in an amorphous balance sheet category called “good will”—essentially, the difference between the book value of a company's “hard” assets and the company's market capitalization value. Over a number of decades, book value as a percentage of market capitalization value has steadily declined, as more and more of companies' real worth lay in intangible assets. Although there are other causes of the increasing “Market to Book Ratio,” many observers view a primary cause to be the

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3. 2002 Annual Report to Congress on Foreign Economic Collection and Industrial Espionage.
 4. *Intangible Assets and Future Value*, Accenture Ltd., 2003, www.accenture.com.
 5. *Supra*, n. 2.

fact that book value does not sufficiently account for the value of intellectual property. It is still subject to debate that SOX was designed to solve this problem, as it makes no specific reference whatsoever to valuing IP assets. But proponents of more robust IP management posit that SOX “requires” that IP must be isolated from the amorphous category of “good will” and measured more accurately in order to capture its contribution to the overall value of a company, ultimately leading to more rational investment decisions by shareholders.

II. WHAT SOX ACTUALLY REQUIRES WITH REGARD TO IP ASSET VALUATION

As noted already, SOX says nothing specific about IP valuation. Rather, there are five key sections of SOX that are behind the movement toward greater IP management and more accurate valuation: Sections 302, 401, 404, 409 and 906.⁶

Section 302, in summary, states that the signing officers of a public company must (1) certify that their required annual and quarterly reports (i.e., 10-Ks and 10-Qs) contain no materially untrue or misleading statements and have no material omissions; (2) certify that the reports and related information fairly present the financial condition of the company in all material respects; (3) certify that they are responsible for internal controls related to financial reporting and that they have evaluated these internal controls within the previous ninety days and have reported on their findings. In addition, public reports must include a list of all deficiencies in the internal controls and information on any fraud by employees who are involved with internal activities, as well as any significant changes in internal controls or related factors that could have a negative impact on the internal controls.⁷

Section 401 requires that annual and quarterly reports include all material off-balance sheet liabilities, obligations or transactions.⁸

Section 404 requires that annual reports include information concerning the scope and adequacy of the internal control structure and proce-

6. Because SOX is codified in varying titles of the U.S. Code, the different sections of the Act are commonly referenced according to their Public Laws citations (i.e., 302, 401, 404, 409 and 906). However, as noted above, citations to the specific sections of the U.S. Code are provided herein as each section is referenced.

7. 15 U.S.C.A. § 7241.

8. 15 U.S.C.A. § 78m.

dures for financial reporting and assess the effectiveness of such internal controls and procedures.⁹

Section 409 requires disclosure “to the public” on a “rapid and current basis” of all material changes in a company’s financial condition or operations.¹⁰

Finally, Section 906 imposes civil and criminal penalties for failure to adhere to the Act.¹¹

Obviously, there is nothing in these Sections of SOX dictating that public companies do anything specific when it comes to IP valuation. However, the overall aim of the Act is more precise and comprehensive accounting and reporting regarding all assets impacting company earnings (and hence, shareholder value). The requirement that company officers sign off on the accuracy of quarterly and annual reports, and the fact that they face criminal penalties if the statements are deemed materially false, is what is driving the push toward greater attention to IP valuation. Particularly relevant are Section 302’s requirement that reports fairly present the financial condition of the company “in all material respects,” Section 404’s requirement of “internal controls” and Section 409’s requirement of real-time public reporting of “material events” impacting a company’s financial condition.

There are three primary arguments supporting the view that SOX requires greater efforts in the area of IP management and valuation. First, it seems plain that, if the anecdotal evidence referenced above is correct that the value of the overall enterprise is increasingly tied up in intangible assets such as intellectual property, company officers cannot truthfully certify that financial reports fairly present the condition of the company “in all material respects” if they do not have a handle on the dollar value of those intangible assets. Second, there is no way to get an accurate dollar valuation of IP without a clear picture of what particular assets the company holds in the way of intellectual property. And, third, the signing officers cannot truthfully certify that the company has adequate internal controls in terms of accurate financial reporting unless there is clear and regular communication between business units engaged on an operational level in creating, using and protecting the intellectual property, on the one hand, and those doing the financial reporting, on the other. Thus, SOX compliance with regard to IP valuation can really be broken down into

9. 15 U.S.C.A. § 7262.

10. 15 U.S.C.A. § 78m.

11. 18 U.S.C. 1350.

three main categories of activity—inventory, valuation and internal controls.

A. Inventory—The IP Audit

Before a company can properly value its intellectual property, it must first identify it. This is easier in some companies than in others, and it is easier with respect to different types of IP than with others. For instance, a software company may derive a large percentage of its revenue (or perhaps all of it) from licensing its software to its customers. The software may be patented. Its source code may be the subject of a registered copyright, and the software may be marketed under a registered trademark. In such a case, it is relatively easy to identify the tangible intellectual property “grants” (i.e., patents, registered copyrights and trademarks) as the company’s intellectual property portfolio.

But take the same sort of software company and imagine that it has no patent and, further, that its software is not patentable. Imagine further that the source code was developed by multiple employees and independent contractors over a number of years, and that the company entered “work for hire” agreements with and received assignments of copyrights from some of its independent contractors but not from others. Imagine further that the name of the software has changed dozens of times over the years as new versions and modifications have been developed, that most of the names have been rather generic, and that the company has no registered trademarks. Imagine also that the company has been through periods during which it was quite diligent about entering into restrictive covenants with its employees but that, during other periods, it was quite lax in obtaining these agreements. Finally, imagine further that the company’s record-keeping system has not always been the best and that restrictive covenants with some current and former employees are on file, while others are not, and that some aspects of the current versions of the source code can be traced back to prior versions, but it is not clear where other aspects of the source code originated. What is the state of this company’s intellectual property portfolio and, more important, how does it relate to the overall value of the company?

Regardless of which type of company is under consideration, it is recommended that every public company perform an IP audit and that this audit be updated at least annually, if not more often. Although

there is no established “best practice” for conducting the IP audit, the following are some ideas worth considering:

- Appoint a team of people to conduct the audit, with one person designated as the person in charge. Although there is no “correct” mix of team members, it makes sense to include as many of the following as possible: in-house counsel, outside IP counsel, a high-level representative from corporate IT, a representative from R&D, a representative from operations, a third-party consultant with experience in conducting IP audits, and a trained financial auditor (who can hopefully bring some order to the process)
- During the course of the inventory process, keep foremost in mind that the ultimate end game is a valuation of the IP, once it has been identified. Be sure to collect data that not only helps to fully identify the scope of the IP, but also helps to value it
- Identify the readily identifiable IP “grants”—copyrights, trademarks, patents and written license agreements—first. Once you have identified all easily identifiable forms of IP, you can more easily identify any weaknesses in these particular pieces of the portfolio (i.e., failure to pay annual fees, etc.) and, in comparison to other information owned by the company, identify shortcomings in protection related to information not protected by a formal “grant.”
- Also consider the following with respect to specific classes of intellectual property:¹²
 - For patents,
 - Copies of all patents, patent applications and patent abstracts.
 - Historical cost records that document development of the patent, including financial information that may be relevant to the cost of manhours spent in development.
 - Identification of patents and associated products that currently have or are expected to have commercial viability and, if possible, projected revenue over the life of the patent and direct expenses associated with producing the revenue.

12. Adapted from list provided by American Institute of Certified Public Accountants.

- Identification of patents that are dormant or not directly producing income, and benefits associated with such patents (i.e., exclusion of competitors, marketing benefits, etc.).
- Identification of the expected life of the patent, including possible extension of patent protection beyond statutory life of patent.
- If possible, projection of future sales of products or services that will employ the patents for the next five years, as well as any direct expenses associated with producing the sales.
- Identification of all licenses associated with any patents, either from the company to third parties, or from third parties to the company, and detail of any revenue streams and expenses associated with such licenses.
- For trademarks, trade names, trade dress and other “brands,”
 - Copies of all documentation regarding trademark or trade name registrations.
 - A list of all trademarks, trade names, product names or other “brands” that are not registered.
 - Identification of which trademarks, trade names, product names or other “brands” are associated with specific products or services.
 - Historical sales data related to products or services employing the trademarks, trade names, product names or other “brands” for the last five years.
 - If possible, projection of future sales of products or services that employ the trademarks, trade names, product names or other “brands” for the next five years, as well as any direct expenses associated with producing the sales.
 - Identification of all licenses associated with any trademarks, trade names, product names or other “brands,” either from the company to third parties, or from third parties to the company, and detail of any revenue streams and expenses associated with such licenses.

- For copyrights,
 - Copies of all documentation regarding copyright registrations.
 - A list of all non-copyrighted “works” authored or licensed—books, manuals, treatises, articles, software programs, web content.
 - Identification of authors of works and assessment of whether works are the subject of appropriate assignment, if necessary
 - Historical cost records that document development of the work, including financial information that may be relevant to the cost of manhours spent in development.
 - Historical sales data related to all copyrighted (registered or not) products or services employing the works for the last five years.
 - If possible, projection of sales of all products or services that will employ the works for the next five years, as well as any direct expenses associated with producing the sales.
 - Identification of all licenses associated with any works, either from the company to third parties, or from third parties to the company, and detail of any revenue streams and expenses associated with such licenses.
- For software, specifically,
 - A description of all distinct software applications in use by the company, including descriptions of the functions served by the software.
 - If internally developed software, historical cost records that document development of the software, including financial information that may be relevant to the cost of manhours spent in development.
 - If licensed software, copies of all license agreements, assessment of the number of “seats” licensed vs. number of users, historical cost of annual license and maintenance fees, and, if possible, projection of future license fees and costs to maintain and upgrade.

- Historical revenues attributable to software (licensing revenue or income from products or services directly supported by the software).
- If possible, projection of future revenues attributable to the software, less direct expenses associated with producing revenue.
- For customer relationships,
 - A list of active customers and identification of employees with customer relationships.
 - Identification of restrictive covenants with employees with customer relationships.
 - Customer sales history for the last five years.
 - Complete customer history for the last five years.
 - Financial data representing annual costs for the last five years associated with developing/soliciting new customers.
 - Schedule of new customers gained in each of the last five years with sales.
 - For the last five years, number of customers in a given year that failed to purchase in the following year, including those customers' sales for the prior year.
- For trade secrets and know-how,
 - Description of all in-process R&D.
 - Description of all proprietary processes or know-how.
 - Description or assessment of the competitive advantages gained by employment of proprietary processes, know-how or in-process R&D.
 - Assessment of industry trends and competitive pressures that may affect the useful life of the proprietary processes, know-how or in-process R&D.
 - Estimate of useful life of the proprietary processes, know-how or in-process R&D.
 - Identification of employees with access to the proprietary processes, know-how or in-process R&D.

- Identification of reasonable measures taken to protect the proprietary processes, know-how or in-process R&D.
 - Restrictive covenants
 - Access restrictions (i.e., source code safes, pass keys, biometric authorization, etc.)
 - Vendor restrictions
 - Customer restrictions
- Historical cost data documenting development of the proprietary processes, know-how or in-process R&D, including financial information that may be relevant to the cost of manhours spent in development.
- In the absence of historical cost records, estimation of corporate effort to re-create the proprietary processes, know-how or in-process R&D, including financial information that may be relevant to the cost of manhours spent in re-creation.
- Historical sales data related to all products or services employing the proprietary processes or know-how for the last five years.
- If possible, projection of sales of all products or services that will employ the proprietary processes, know-how or in-process R&D for the next five years, as well as any direct expenses associated with producing the sales.
- Identification of all licenses associated with the proprietary processes or know-how, from the company to third parties, and detail of any revenue streams and expenses associated with such licenses.

To be sure, the suggestions made here are not exclusive. The structure and content of an IP audit will vary from one company to another, and experience with the initial audit will assist in managing subsequent audits.

In addition, as important as the initial audit is, what occurs between audits (especially between the first and second audit) is just as important. Companies should establish clear policies and procedures for the treatment of all forms of IP. As part of an overall document creation, retention and destruction plan, the company should keep meticulous

records of its IP, using the audit process as a guide for what types of records should be maintained, by whom and for how long. Records should be as detailed as possible within the parameters established by the initial audit, and all records need to be maintained in such a way that the company has a handle on the status of any given IP asset class at any given time. It may be desirable to appoint one person within the company (perhaps the Chief Information Officer or Chair of the Audit Committee) as having ultimate responsibility for managing the paper trail regarding IP assets between audits. This person should also certainly be a part of the IP audit team. IP counsel should also remain actively involved in the management of IP, and it is a good idea for the person with responsibility for IP asset management to engage IP counsel's assistance and, together, periodically follow up (between audits) with different business units or repositories of information about the status of the different IP asset classes.

A few other aspects of IP management between audits are worth noting. Because of Section 409's requirement of disclosure "to the public" on a "rapid and current basis" of all material changes in a company's financial condition or operations, there should be a method for quickly communicating any impairment in an IP asset's value to those with reporting responsibility as soon as possible. Certainly, the company should be watchful for perceived or threatened third-party claims. Moreover, a company should develop a comprehensive enforcement program to protect its IP assets. One of the collateral benefits of conducting an IP audit and carefully managing these assets for the purposes of SOX compliance is that the company can improve its ability to extract value from the assets, such as increased "harvesting" of employee innovations, employee training, better awareness of the risks of misappropriation or infringement and higher levels of protection. Thus, a company may enjoy expanded opportunities for licensing its IP, grow the market power or prestige of its IP portfolio, create barriers to entry by competitors, or the like. IP protections are no longer primarily just a way to safeguard a company's products or services and the resulting revenue. Rather, good IP management can lead to expanded sources of revenue or sources of securitization.

In summary, the goal of the IP audit is to communicate the details of the company's IP asset holdings to those with responsibility for valuing those assets and, ultimately, to the officers with responsibility for certifying that financial reports fairly represent the financial condition of the company. Without broad, deep knowledge of the company's IP

portfolio, chief executive officers and chief financial officers likely cannot comply with the certification requirements of SOX.

B. Valuation

In addition to the responsibility to have a thorough understanding of the company's IP assets, management is also responsible for assuring that proper valuation methods are used. As noted above, valuation of IP has historically been tricky, but a thorough audit should help make the process more reliable. There are a variety of legitimate methods to measure value, and as with all valuations, which method is used will depend largely on the type of asset being valued, the data available and an analysis of whether the incremental cost of additional analysis will likely lead to an incrementally more accurate valuation. In general, IP assets are valued using either the cost approach, the income approach or the market approach, just as any other asset is.

The cost approach would consider either the cost of development of the asset based on historical costs of internal development of the asset in issue or a similar asset. Cost of replacement is another form of the cost approach—what would it cost the company to replace the asset if it were sold or otherwise disposed of by the company, including costs of development of the replacement asset and the lack of a revenue stream from the asset while the replacement is developed.

The market approach is a measurement of what a third party would be willing to pay to use the asset, based on knowledge of similar assets sold in the marketplace, either by the company at issue or by a competitor in a similar market.

The income approach usually analyzes the present value of expected future cash flows. In other words, if there is enough historical data to measure the cash flows from the IP asset or related product, the measurement would project those cash flows into the future (perhaps, for example, through the life of a patent) and use an appropriate discount rate to extrapolate backwards to the present value of those future cash flows.

Obviously, there are many potential factors that can impact a valuation using any of these standard methods. For instance, if a revenue producing patent is valued using the income approach, some reasonable analysis must be done to determine the likelihood that the patented product would become obsolete or subject to other competitive pressures. Or, if it is discovered during the IP audit that there are inadequate protections in place to guard the company's trade secrets, an

adjustment must be made for the possibility that the value of the trade secret has been impaired by disclosure. The point is that the value of an IP asset is usually not stagnant. Its value may change over time, depending on internal and external factors.

If possible, it is desirable to value an IP asset by linking the asset directly to the products or services which rely upon or are supported by the asset. This would generally support either the income approach or the market approach to valuation. However, this process is often difficult and can be quite expensive. This is especially true for a company with an extensive IP portfolio and multiple products or services.

It is also possible to measure an IP asset's performance against internal or external indices. For instance, a company may set performance goals of an IP asset against an internal index created to measure avoidance of infringement litigation. This is only possible if a company can collect large amounts of data over a long period of time and evaluate the data against other types of data against which it can normalize. External indices may provide a neutral point against which to measure, adding objectivity to the valuation. For instance, a company may be able to find external indices that allow it to measure itself against its competitors. R&D levels, quality of patent portfolios, number of engineers employed or number of proprietary, commercially viable products, to name a few, may all be the subjects of external indices against which to measure.

Other authors have suggested various specifications related to measurement of IP asset value:

- All data should, as far as possible, come from existing data sources within the company.
- External data sources should come from reliable government sources, vetted commercial data providers or outside data sources deemed reliable by company management.
- Technology use by product should be tracked to the extent possible in the company.
- Measurements should, to the extent possible, be subjected to statistical processing such as normalization.
- Measurements should be done on an individual year and historically indexed basis.

- When appropriate, measurement should be indexed against peer companies.¹³

Other ideas for arriving at the most accurate value for a particular IP asset include considering scenarios that would either bring greater value to the company from the asset or would cause the company to lose value. Are their potential revenue-producing uses to which the IP could be put and, if so, what is the likely revenue to be derived? Conversely, what impact would it have if the company lost use of the asset or if competitors could use it with no restrictions?

In summary, valuing IP remains as difficult as it has ever been, but it is hoped that standards will continue to develop as SOX compliance increases. In addition to Sarbanes-Oxley, FASB Statement nos. 141 (“Business Combinations”) and 142 (“Goodwill and Other Intangible Assets”) have recently been adopted and require companies to measure and report on the financial performance of acquired intangible assets. Although these guidelines perhaps exacerbate the tendency toward “rules-based” accounting (GAAP) instead of “principles-based” accounting methods applied in other countries, their adoption may hasten the development of best practices in familiar scenarios (mergers and acquisitions), which can then be transposed into more ethereal areas.

C. Internal Controls

Finally, a word about internal controls. The entire subject of internal controls has been confused by the growing belief by some that “internal controls” mean something directly related to controls on IP (i.e., restrictive covenants and passcodes, or patents) or something directly related to network security. That is not what is referred to by “internal controls” under SOX. Rather, SOX deals with internal controls over the financial reporting process, so that the reporting officer can be assured that what he or she is reporting has not been the subject of fraud or manipulation. Observers have extended the literal meaning of “internal controls” to refer to IP-related risks (potential infringement actions, failure to pay license fees, etc.), but those issues really relate to impairment of the value of a particular asset. It is true that, if an officer is going to truthfully make the representations arguably required by SOX about IP asset value, he or she must have assurance that the IP assets

13. Barron, Hansen, Bero, Thomas & Karerian, *Global Intellectual Property Asset Management Report*, June 2005, Vol. 7, No. 6, at 6-7.

are adequately protected and not unreasonably impaired, and certain “controls” are necessary in order to provide that assurance. Moreover, the data upon which a valuation is based must have integrity, and the integrity of certain data (especially historical data) is only as good as the systems protecting that data, so internal controls include some degree of controls over networked electronic systems. But, the crux of Section 404’s requirement of “internal controls” is that companies are required to perform regular self-assessment of risks to business processes (both automated and human) that affect financial reporting, as opposed to risks that affect the value of the asset itself. The latter category of risks is something that should be accounted for in the actual valuation process, and it would be a mistake to deal with this category of risks only in response to Section 404.

III. CONCLUSION

Although Sarbanes-Oxley does not explicitly mandate a change in the way public companies report the value of and manage their IP portfolios, that is likely the result. The provisions of the Act dealing with “certifications” and “internal controls,” in combination, should lead to signing officers developing a much more thorough understanding of the way their company’s IP portfolio is managed and the relationship of that portfolio to the overall financial well-being of the company. While some company’s are still taking a “wait-and-see” approach, opting not to act before they know exactly what is required, others are working feverishly to refine their processes and get a handle on the precise nature of their IP assets. Thus far, no actions have been brought against any public company for failures in regard to IP valuations, and best practices are still developing. But the effort by many companies to more accurately document their IP, and its value, will likely lead to the collateral result of companies squeezing more shareholder value out of assets that are increasingly important in the new economy.