VERIAM™

1 January 2008

TOTAL ASSET MANAGEMENT

Value Model and Comparative Value Propositions

A Management White Paper by:

William B. Husselbaugh

Revision 1, 4 February 2002

1 January 2008

COPYRIGHT NOTICE

ABSTRACT

This paper is a "must read" for anyone considering using Information Technology Asset Management (ITAM) to pursue Software License Reconciliation in order to demonstrate license compliance – this includes internal audit groups. Contrary to popular belief, this paper shows such pursuit yielding a ***negative*** value statement for many companies.

The focus of this paper is to quantify expected value statements for six primary benefits of an ITAM solution, in order to examine and recommend components of a focused ITAM approach. The focused approach recommended herein is in contrast to the generally accepted all-encompassing ITAM solutions being promoted, and requested, today.

Quantification of value statements is performing using Giga Information Group's Total Economic Impact™ methodology. Value statements are calculated and presented as risk-adjusted, normalized, per seat per month values, to allow companies of differing sizes to apply the results more easily. The entire model is presented including benefit equations and risk factors.

In all, the following common benefits are modeled and presented:

1. Lease End Management
2. Software License Reconciliation
3. Software Recycling
4. Warranty Tracking
5. Improved Help Desk 1st Level Closure Rates
6. Improved Install/Move/Add/Change (IMAC) Dispatch to Resolution Rates

Each benefit is described in detail, modeled, and calculated. In addition, the potential value of Improved Project Planning is presented in the Conclusion section.

Based on the model's results, conclusions are drawn and discussed, including the use of the Software Recycling value to address license compliance. This is an important conclusion, as it offers an alternative to the tack often being pursued today of trying to reconcile discovered software with purchasing records – a course of action that this paper shows likely to yield a net negative return.

Another conclusion presented is the rethinking of whose problem asset management really is in an outsourced environment. This paper explores that question and its probable conclusion(s).

Finally presented is the conclusion that the value statements presented herein do not require a robust asset management system to deliver.

1 January 2008

THE PROMISE OF IT ASSET MANAGEMENT (ITAM)

It would probably be faster to list the things ITAM does not promise, as it is a shorter list. ITAM is often thought of as the "glue" that bonds together all activities of supporting a distributed infrastructure. Help desk can be made more efficient if only it had accurate asset information available. Maintenance contract costs could be reduced if the contract were properly reconciled against what's actually in service within the environment – especially if proper warranty information were available. Enforcement of standards would be possible if an autoscanning system were in place and could report back when deviations to the standard image were reported. Software licensing and the threat of audit could be eliminated by reconciling purchasing records to licenses discovered by an autoscanning system. Leasing can be made more responsible by being able to find the asset at the lease end and return it in the same configuration as when it was received. And the list continues. In short, ITAM is thought to be the missing or incomplete layer of information necessary to make better decisions, in turn resulting in a more efficient operation. Some have claimed that ITAM can reduce operational costs by up to 30%. That's certainly an attractive number, but does ITAM actually deliver?

ITAM's SHORTCOMINGS

Although there are exceptions, by and large most ITAM implementations tend to succeed as long as an internal and competent "zealot" exists. When the zealot moves on, the attendant ITAM implementation tends to quickly implode. Ask any ITAM consultant and/or tools vendor and they will be hard pressed to demonstrate an implementation that has lasted beyond three years. (If a vendor confidently offers a list, then ask to talk to the **users** of ITAM output within that account – not the ITAM staff.) The typical life expectancy is two years or less. That is not to say that any tools that have been implemented will be abandoned within that time frame – some will and some will not. (There may be tangential benefits to those tools that have caused them to become embedded.) However, although the tools may still function, the data they house is usually suspect and has often fallen below the collective confidence threshold, rendering it of little or no value. If the organization does not "trust" the data, it will not be used. Therefore, with the ubiquitous and obvious need for management information regarding minimally an asset's composition, history, and whereabouts, why then are there substantially more failures than there are successes with ITAM?

A group of gathered Fortune 500 CIOs was once asked, "Do you believe IT Asset Management is important?" Their unanimous answer was "Yes". They were then asked the follow-up question "Then why aren't you buying it?" Again they unanimously answered: "Because it's hard to justify." What the CIOs were communicating was that they knew they should be doing a better job managing their distributed infrastructure but they were not personally convinced that asset management would deliver. That made them unwilling to stand in front of the Board of Directors and ask for the funding necessary to implement an ITAM solution. The question then becomes, with an intuitively obvious need for such basic information as "what do we have, where is it, and who has it?", why do ITAM solutions continue to struggle to deliver – even to that basic level of need? To understand the answer to that question you must first understand some of the issues surrounding ITAM.

The "Automation" Misconception

It is quite possibly core to the belief system of technically oriented people – people that make their living finding ways to apply technology to automate business needs – that any process can be automated. Therefore, it stands to reason that ITAM can be automated. After all, PCs are intelligent devices, most of them are interconnected via network, and modern operating systems support standardized queries seeking composition information – both from a software and hardware perspective. Then, as technical people express their needs to tools vendors, the automation belief continues and ultimately, tools vendors respond with claims of having

automated the ITAM solution. To this day many tools vendors continue to claim that they have a fully automated solution, at least for *tracking* assets. This claim resonates with the inherent belief system of the technical audience and the result is an entrenched view that the ITAM solution, at least for tracking assets, can be automated. Any suggestion to the contrary tends to meet with opposition – sometimes very vocal opposition. This opposition is usually voiced by those that have not tried asset tracking via solely automated means.

This should not be read that asset tracking should not include automation – indeed it should. The trap is in thinking it can be *completely* automated – i.e. that you'll never have to physically visit the asset again.

The problem is in the attempt to capture and keep current *dynamic* data elements – those elements that tend to change frequently over the life of the asset and which cannot reliably be discovered automatically. Such elements include cost center, location, name of employee to which the asset is assigned, department – elements that are demographic in nature and which are used to tie the asset to the business in some meaningful way. Although many have tried to automate the capture and upkeep of this important class of data elements, most continue to struggle with its accuracy. Unfortunately, the dynamic data is the class of data most visible to the business, and is often times the place where the business will find inaccuracies that will ultimately cause the loss of trust. The only way to ensure correct capture of that class of data is to enlist human interaction, which requires defined process and audit.

Schemes to automate the capture and upkeep of dynamic data elements include automatically capturing the logon ID and using it to query another database, such as Human Resources, for employee information. This scheme fails whenever another person logs into the PC using their logon ID. Technicians, shared PCs, contractors, visiting employees – all tend to cause this scheme to fail. Although the resulting inaccuracy may only be increased by 10-20 percent, it is oftentimes sufficient to cause the "trust" factor to quickly fade.

Another consideration is the focus on the PC. Most organizations track more than just the PC – they track monitors and printers as well. In those organizations, typically more than half of the installed asset base is non-intelligent and cannot respond to automated query software (there are some exceptions to this, but they represent the minority at present). Therefore, human interaction is essential to capture any information regarding those assets.

Finally, automation fails to accurately report the whereabouts of assets that have been removed from the network. Ironically, these are the very assets that contain the largest potential value statement. End of lease and software license recycling both deliver their value at the end of the asset's life cycle. Unfortunately, an automated solution is generally incapable of telling you in which closet the asset has been stored, or under which desk, and you will struggle to find it in order to capture the potential value.

The problem is the embedded mindset of "asset tracking can be fully automated" often precludes consideration of simple physical reconciliation procedures to restore lost accuracy – procedures that to this day retail stores must pursue to reconcile their sellable goods inventories. This preclusion of thought ends up yielding a solution that, in turn, has no means for restoring lost accuracy. The realized ITAM solution then continues to lose accuracy over time, until it finally falls below the confidence threshold and the recipients of the reporting begin to lose trust in the data. When that happens, only a physical inventory can restore accuracy, but organizational expectation had never been set along those lines, so no one is willing to stand up and ask for the unbudgeted funding to fix the accuracy problem. Instead, people begin to politically distance themselves from the solution, which is the beginning of an implosion.

The "Respect" Issue

1 January 2008

What's so hard about keeping an inventory? After all, that's what many think of when they think of IT asset management. The common view is it's Information Technology's version of the common fixed asset system maintained by most companies. The problem is that maintaining the fixed asset system is generally an additional duty of a staff level employee in either the facilities or finance department, which is an indication of the level of importance with which management views it. Management tends to view ITAM the same way – the upkeep of an inventory. Therefore, IT asset management tends not to demand the same level of respect of say the implementation of an Enterprise Resource Planning (ERP) project or the move towards ISO 9000 certification. Senior sponsorship of an ITAM implementation is generally not present, and if a senior sponsor is involved at all, it is usually as a decision authority who has finally agreed to sign the check. Beyond that, interest in ITAM at the senior level may surface from time to time, but can generally be classified as "mild" at best. Most CIOs can probably tell you if their organization is pursuing IT asset management or not, but would be hard pressed to clearly articulate their expectations from the program, or even the current state of the program. Above the CIO, IT asset management is most likely not even on the radar screen.

Why is senior sponsorship important? Senior sponsorship is critical to placing weight behind the change to business habits needed to enable successful tracking of IT assets – the key ingredient in any ITAM solution. Senior sponsorship can be defined on a continuum ranging from "not present at all", to "has agreed to sign the check", to "is enthusiastic and continues to ask when results will be available and what progress has been made." To succeed, ITAM requires senior sponsorship toward the "is enthusiastic …" end of that continuum. How high in the organization does senior sponsorship need to exist? Consider that, in most organizations, any employee can remove an asset from service and place it in a closet, can swap their system with the one in the empty cube to gain a higher performance unit, and can purchase software on a credit card and be reimbursed on an expense report. This is not to infer there are no rules against these activities – indeed there may very well be rules, but the activities continue nonetheless. Therefore, since any employee in the entire organization can impact the accuracy of an ITAM implementation, senior sponsorship truly needs to be at a level that can directly influence behavior across the entire organization. Senior sponsorship and enthusiasm at the CEO level for IT Asset Management? How likely is that? Most would agree not very likely considering that the principal direct beneficiary of IT Asset Management is the IT organization and the discipline itself is largely viewed as the upkeep of an inventory – certainly not worthy of a CEO's time or concern. For the CEO to be interested, the discipline of IT Asset Management would somehow have to be convincingly connected to the performance of the stock and/or continued viability of the company. How likely is that? If the focus of the benefits of ITAM continue to be a more efficient IT organization, and if those benefits continue to be largely "soft" or "intangible", then not likely at all. Therein lies probably the largest dilemma facing the successful implementation of an IT asset management system today – a "cart and horse" dilemma of sorts. IT asset management requires very senior enthusiasm and support yet management at that level cannot connect the benefits of IT asset management to directly solving any of the problems they face. Furthermore, even if management at some senior levels (CIO) can appreciate the academic arguments for pursuing IT asset management, they still lack sufficient belief that the benefits to be gained are real.

Once you understand this dilemma and the constraints it places on the successful implementation of an IT asset management initiative, you then begin to understand that the industry as a whole has been largely going about solving this problem the wrong way. The problem is real and does exist – how to effectively and efficiently manage a large distributed technology infrastructure on which the enterprise is dependent. The solution is still being sought, but new thinking is essential to finding a way of delivering value that takes into account the dilemma presented by the common inability to attract senior interest and sponsorship.

The "Grand Solution" Disconnect

An asset management need may be initially stated: "we need to know what we have, where it is, and who has it." Then, as more interests get involved and thought deepens, the need expands to include purchasing and change management. After all, purchasing needs an on-line product catalog to help enforce standards (that should tie to asset management, shouldn't it?) as well as simplify the ordering process. And, while we're at it we need a change management system and it just makes sense that asset management can benefit from the pre-emptive asset change information available through change management. Come to think of it, Contracts can also use a better system for tracking all IT maintenance agreements and Finance needs a better system to track IT lease obligations. Since we're there anyway and since a lot of this stuff requires process, we should include process and work flow. Before long, what started as a seemingly simple need for basic asset and demographic information has transformed into a complete "run your entire IT shop with this one asset management application" megasolution. More than one tools vendor has obliged by offering just such a megasolution. The problem is that all of this "blue sky" expression of needs has failed to focus on first solving the fundamental issue of basic asset tracking – answering the original question that was asked and continues to be asked – "what do we have, where is it, and who has it?" If that basic need cannot be met reliably, then all the fancy add-on capability is just that – fancy add-on capability. Don't read this the wrong way – it's not the fault of the tool that prevents successful tracking of basic asset information – it's almost always the failure of discipline within the organization. What is at issue, however, is the cost of the megasolution versus its expected value statement. If it cannot assist in overcoming the fundamental discipline problem, resulting in data of suspect accuracy, then of what value is the rest of the system's capabilities? If some of the capabilities can be disconnected from the primary stated objective of IT asset management, then the system may yield tangential value. For example, if the work flow capabilities of the tool can stand independently of IT asset management, then the tool may continue to be very useful for that task. On the subject of accurate asset tracking, though, ask a megasolution vendor whether or not they recommend periodic physical reconciliation to restore lost accuracy as part of their solution. If they do not – or worse insist that it's not necessary - and you have accepted the retail analogy presented in this paper that such an activity is an essential requirement for restoring accuracy, then that suggests the tools vendor does not fully understand the underlying problem for which it has created its megasolution. Beware! The market is full of such vendors.

Another fundamental problem with the megasolution is the lack of acknowledgement of the difficulty in getting more than one disparate group to agree to use a common tool. This, in many organizations, is an almost insurmountable task. It doesn't manifest itself during the research, test, and procurement phase of the project. In fact, the representatives from the disparate groups who are present in all the meetings are seemingly excited and on board with the decision. No, the problem waits until the megasolution has actually been procured and implementation has begun by the group who sponsored the acquisition. And the problem never surfaces as vocal or even intentional opposition. Rather, the problem surfaces as simple inertia – guess what, all other groups except the primary acquiring group never seem to get around to getting on the new tool. This is a repeated phenomenon and it is always interesting to find that people are surprised when it happens. Committed senior sponsorship above all disparate groups is essential to overcome the inertia and gain full value from the purchase. If committed senior sponsorship does not exist, then what typically happens is a fraction of the tool that addresses the needs of the sponsor group is used, but the rest of the tool's capabilities lie dormant, resulting in a failure to capture the full value and/or even justify the original expense. To expect to replace legacy systems, especially more than one, with a single tool – one that is sponsored by a peer level group – is often unrealistic. The question then becomes, what lower cost solution would have ultimately delivered the same value and therefore been better suited for our needs?

The issue with the popular school of thought of the need for a megasolution is that it has raised the visibility of an ITAM solution to board level in many organizations. This is due to the inherent cost of these solutions. In addition, the cost of failure, in terms of personal credibility, is much higher, which has the effect of dampening the organization's (or at least the CIO's) enthusiasm for pursuing an ITAM solution. This is the primary

thought behind the CIOs' collective answer of "it's too hard to justify" to the question "why aren't you buying IT asset management?"

ITAM – A DIFFERENT APPROACH

The high promise - low perceived delivery of current ITAM approaches suggests looking at the problem differently. Instead of attempting to accommodate and address all known issues of managing a distributed infrastructure within the ITAM solution, why not look at where the largest value propositions lie and then determine the minimally essential tools and processes necessary to capture the value? That is, ignore issues that really do not drive value and craft a highly focused solution that seeks to deliver on a handful of specific points of need. Would not such a solution be more tractable? Would it require a lesser investment in tools and, more importantly, a lower dependency on processes and organizational discipline? After all, it is the failure of process that accounts for the ultimate failure of most ITAM implementations.

The point of this paper is to quantify the potential value of various benefits of a focused ITAM approach. Calculating value requires an estimate of the benefit to be gained, the time phasing, and the risks that oppose actually capturing the expected value. The focused ITAM approach documented is in direct contrast to the common "full scale" solution upon which most ITAM repository tools have been predicated. As will be shown, a highly capable (and expensive) repository tool is not necessary to deliver the value statements explored herein.

1 January 2008

THE VALUE APPROACH – GIGA INFORMATION GROUP'S TOTAL ECONOMIC IMPACT (TEI™) MODEL

In order to present a focused approach, it is necessary to first study the expected value proposition of several of ITAM's proposed benefits. Although many benefits are thought to be "soft", or "intangible", it is possible to quantify the benefits using Giga Information Group's Total Economic Impact (TEI™)[1] model.

TEI is the natural evolution of GartnerGroup's Total Cost of Ownership (TCO) model. TEI is the result of several years of research by Giga analysts, and it focuses on communicating the overall value of technology investments in a sound business case. Whereas TCO is fundamentally a single dimensional view of where costs are currently being incurred, and more importantly where they may be reduced, TEI is a multi-dimensional view of not only costs, but impact to the business, risk, and inherent flexibility. As more and more businesses recognize their dependency on information technology, TEI, and models like it, are more suited to support IT decisions. Making an IT decision today based solely on cost and cost takeout might adversely impact the business, producing a net negative.

The TEI model consists of four primary elements: cost, benefit, risk, and flexibility. TEI generally views the transition from a current state to some future state, quantifying the impact of that transition. The cost element of TEI quantifies all costs in making the state transition. Costs include all software, hardware, training, personnel, vendors, and other implementation and operational costs of the proposed change. Costs primarily focus on the IT budget. Benefits quantify impact to the business, and primarily focus on the business budget. Benefits may be negative, in the case of additional expenditures necessary to change business behavior in order to make use of a new technology capability. Benefits may also be positive, such as improved time to market and the impact that has on capturing and defending market share. Although quantifying technology impact to the business is often controversial, TEI addresses the concept by involving the business in the quantification exercise. That is, the business validates the numbers used, thereby creating a fully collaborative business case. The risk element is often overlooked in other models yet is a very important element. The risk element quantifies the effects of risk – those forces ready to oppose the capture of benefits and/or cost reduction as a result of transitioning to the desired future state. Risks often consist of organizational (resistance to change and/or failure to change habits in order to capture benefits), vendor viability, technology (the technology fails to deliver), and the ever-present risk of project cancellation due to numerous factors. TEI considers the impact of risk and uses that impact to predict a risk-adjusted return on investment (ROI) value. If the risk-adjusted ROI continues to be compelling, then the proposed change is most likely a good decision for the business.

The fourth element of TEI is flexibility. Flexibility is most useful in considering outsourcing and/or infrastructure investments. Flexibility can best be described by drawing the analogy to owning options in the stock market. When you purchase an option, you do not actually purchase the stock – you purchase the right to buy or sell the stock. Similarly, when you upgrade the network to add bandwidth, you have now created options, or flexibility, which you did not have previously. The option to roll out an application that demands higher bandwidth, for instance. Possessing that option has intrinsic value. After all, if you did not possess that option, and you wanted to roll out that application, you would first have to upgrade your network. Done in a reactive sense, as is oftentimes the case, you would most likely suffer higher cost to implement on a rushed schedule, delays on reaping benefits from the new application, and overall negative impact to the business as they struggle with a degradation in performance over what they were using previously – not to mention the bad press. Therefore, owning that spare capacity – even though it's not being used presently – has value. TEI's flexibility element uses the Black-Scholes options pricing model to quantify that value.

[1] Giga Information Group's TEI™ can be explored at www.tei.gigaweb.com

TEI adjusts expected gains and expenditures for risk by applying each, independently, to a probability density function called the "Triangular Distribution". The result is a tendency to yield a higher cost as well as a lower expected benefit, in turn creating a lower expected ROI. Essentially the ROI is being reduced from two directions simultaneously – higher cost due to risk and lower expected benefit, also due to risk.

The Triangular Distribution requires three data points – a low, most likely, and high value. Those three data points define the worst possible outcome envisioned, the most likely outcome, and the best possible outcome envisioned. When the three points are chosen, and they are chosen by the modeler based on the perceived magnitude and likelihood of an enumerated list of risks, they are specified as a percentage of the original estimate. As an example, say the original estimate for a benefit is set at $1.0 M, then by using percentages, the low, most likely, and high values might be specified as follows:

Low – 75% (equaling $750 K)
Most likely – 100% (equaling $1.0 M)
High – 150% (equaling $1.5 M)

Such a case as the example given above might be used to assess risks to a benefit when the perceived risk is low, meaning that the worst possible outcome envisioned in the face of all the risks that can be seen is only 75% of the original estimate.

TEI uses the mean, or expected value, of the Triangular Distribution as its risk-adjusted number. The interpretation is that if you are average at mitigating known risks, then you should expect the risk-adjusted number to be what you actually experience – be it cost or benefit.

THE VALUE MODEL

Although the TEI model created for this paper included estimated cost elements, such as repository and autoscan license/maintenance fees, implementation labor, operational/steady state labor, and baseline inventory costs, those costs were excluded from the final analysis as the primary focus is on potential value, and the magnitude difference in value between six common ITAM benefits. Generally, since the focus is to isolate and compare value statements between common benefits, cost information is not relevant. Although TEI does yield a true ROI expectation, since this paper focuses solely on potential value, ROI is not presented. You are encouraged to pursue a complete TEI analysis if you are interested in calculating true ROI for your implementation.

The TEI model created to study the various value propositions of some of ITAM's more common benefits focuses on the following six:

Lease End – This benefit is primarily centered around avoiding month-to-month lease payments after the initial lease schedule has expired. Such payments can be higher than the original monthly lease payments, and some lease vendors charge penalties as well. By finding the asset (the principal challenge), then returning it in its original configuration, the month-to-month lease payments can be avoided.

Software Recycling – This benefit applies mostly to large organizations that buy software through a master license agreement of some sort and that tend to apply a standard "image" to new PCs as they are acquired. Each time an image is applied, new licenses are tallied against the master agreement and payments are made accordingly. The loop, however, is oftentimes not closed in that a percentage of machines coming in the door are replacing some machines that are, in turn, being removed from service. Those machines being removed

from service, even though they may be older technology, often have current, or nearly current, software loaded. The machines being decommissioned usually have their hard drives wiped clean before being finally dispositioned, offering an opportunity to "recapture", or "recycle" those still useful licenses. If this loop does not exist, good software is potentially being thrown out.

Software License Reconciliation – This benefit is primarily an insurance policy of sorts. The focus is to prevent a potentially costly audit, however unless the audit is performed there is no cost to reduce. That is, the money spent in pursuit of this benefit is intended to avoid a software audit, and can be considered an insurance premium. The concept of pursuing this benefit is to first discover the software installed within the environment, then reconcile that discovered software with purchasing records to determine the current level of compliance, then to take steps necessary to create and maintain full compliance. For some companies, an internal audit group demanding to see evidence of license compliance may drive IT to pursue this benefit.

Warranty Tracking – This benefit is to avoid paying twice for maintenance coverage – essentially paying to maintain assets that are presently still covered under warranty.

Improved Help Desk 1st Level Closure Rates – The concept is that if the help desk were to have more timely and accurate asset information, that information could be leveraged to improve 1st level closure rate, thereby saving dispatched resource costs and or second and beyond level resource costs. Additionally, the presence of accurate data may allow pre-emptive problem resolution (resolving a problem before the user experiences and reports it), thereby eliminating a portion of call volume.

Improved IMAC Dispatch-to-Solution Rates – When a resource is dispatched to visit an asset as part of a call resolution – be it a software or hardware trouble issue or to simply move the asset – the number of trips required can be reduced if the person servicing the asset has better information by which to plan their pending action. That is, if a resource must visit an asset just to ascertain enough technical information to enable an accurate plan of attack, then visit the asset again to execute that plan, then the availability of asset information might potentially eliminate the first ("scouting") trip to the asset. This would result in reduced cost.

There are many other expected benefits to an ITAM solution, however the six studied were chosen as representative of some of the expectations more commonly expressed by those looking at implementing a solution.

For each of the benefits studied, cost and cost avoidance were modeled along with risk. Since asset management is generally viewed as an efficiency driver to benefit current IT operations, impact to the business was not modeled, nor was flexibility. Risk, however, plays a very large role in the success of an ITAM implementation and therefore was included in the TEI modeling (and should be included in any business case analysis of asset management).

General assumptions:

1. Value was modeled over a three-year period. This is the typical refresh cycle, and therefore life cycle, of distributed assets.

2. ITAM effectiveness was set to 70%, meaning the accuracy of the data and the availability of it, along with resource constraints allow the ITAM implementation to actually be able to deliver value in 70% of the discrete opportunities to deliver value.

3. The average refresh rate (the rate at which desktop technology is refreshed) is three years, meaning that one third of the total seat count is newly acquired each year.

4. The ITAM solution was modeled as taking six months to implement, and therefore begin to deliver benefit. All annual benefit equations have been multiplied by 2.5 to yield the total benefit to be expected over the three-year period.

Lease End Management Reporting

Benefit modeling assumptions:

1. Each piece of leased equipment whose lease schedule comes to term will, at that time, either be in service or out of service. The in service pieces, in turn, are assumed to be providing useful service to the enterprise and are therefore expected to be replaced.

2. The company is continuing to lease, so these units will be replaced with another leased unit. For the purposes of the analysis, the two lease payments are expected to "wash" – that is the net effect is to trade one lease payment for another. Even though a newer piece of hardware might now be in service, from a financial perspective the transaction is viewed (for the purposes of this analysis) as a swap, netting no savings or increase in cost.

3. Some percentage of leased assets is being returned presently, in accordance with the lease terms, however there is no fundamental tracking system in place.

Therefore, the actual benefit tends to reside with those units presently out of service when their respective lease schedule comes to term. The equation used to predict the annual benefit is as follows:

$$IE \times \frac{\left(\left(L_S \times S \times MM_S \times OOS \times MP_S\right) + \left(L_{Sv} \times Sv \times MM_{Sv} \times OOS \times MP_{Sv}\right)\right)}{R}$$

Where:

IE = ITAM effectiveness
L_S = percentage of seats (non-server equipment) leased
S = seat count for non-server equipment
MM_S = percentage of non-server equipment that tends to end up going month-to-month
OOS = percentage of equipment that is out of service at any one time, on average
MP_S = monthly payment for leased non-server equipment (when the equipment goes month-to-month
L_{Sv} = percentage of server equipment leased
S_v = server count
MM_{Sv} = percentage of server equipment that tends to end up going month-to-month
MP_{Sv} = monthly payment for leased server equipment (when the equipment goes month-to-month
R = refresh rate, in years

The following values were used in the model:

IE = 70%
L_S = 80%
S = (variable)
MM_S = 80%
OOS = 20%

MP_S = $300.00
L_{Sv} = 100%
S_v = (variable)
MM_{Sv} = 80%
MP_{Sv} = $500.00
R = 3

The numbers were chosen to represent a typical enterprise or business unit that largely leases its equipment, and does not have tight tracking that can yield positive identification of assets at lease termination and therefore final return to the leasing company. (Although 20% of the assets were modeled as being returned at lease termination). Both seat and server count is variable in the model, but since the results are presented on a "per seat" or "per unit" basis, the actual value used is immaterial. The Out-of-service number of 20% was chosen based on industry experience of between 10% and 30% typical out-of-service rates. (At any time, a typical organization has between 10% and 30% of its assets out-of-service, either in closets, under desks, on top of filing cabinets, or elsewhere)

Primary risks:

1. Lack of adherence to discipline renders information unusable
2. Change in direction - no more leasing

Risk points used in the model:

Low – 10%
Most likely – 75%
High – 100%

In general, risks to the benefit were modeled conservatively since the risks are real and, if not mitigated successfully, can cancel the benefit entirely.

Software Recycling

Benefit modeling assumptions:

1. There is a core set of software titles loaded on each PC within the organization, resulting in an average number of titles per unit.

2. There is some level of recapturing of licenses happening today. If not, then this assumption would simply be set to zero.

3. When a unit goes out of service, there will be some software that has no residual value (too old); some that is within an "upgrade pricing window", meaning it has residual value; and some that is at the exact version level of new software coming in the door. Together, they yield a composite residual value factor, expressed as a percentage of full value.

The equation used to predict the annual benefit is as follows:

$$IE \times \frac{SW \times (1 - SW_R) \times C \times RV}{R}$$

Where:

IE = ITAM effectiveness
SW = Average number of major software titles per unit
SW_R = Percentage of software licenses being recaptured (recycled) today
C = Average cost per major software title
RV = Residual value factor
R = refresh rate, in years

The following values were used in the model:

IE = 70%
SW = 10
SW_R = 20%
C = $100.00
RV = 70%
R = 3

The numbers were chosen to reflect an average Wintel environment with the Microsoft Office suite, one or more commercial specialty applications, and a few non-Office additions. The numbers were chosen to be conservative with the possible exception of the residual value factor of 70% - that may be high for some environments. However, the current recapture value of 20% may also be high (in that many organizations are likely not recycling software at all), which will tend to understate the magnitude of the benefit.

Primary risks:

1. Unsuccessful implementation of out-of-service catch point and/or poor compliance enterprise-wide with the out-of-service catch point.
2. Change in software licensing costs and/or policy that negates benefit of license recapture or need for ITAM to enable recapture.

Risk points used in the model:

Low – 10%
Most likely – 75%
High – 100%

In general, risks to the benefit were modeled conservatively since the risks are real and, if not mitigated successfully, can cancel the benefit entirely.

Software License Reconciliation

Benefit modeling assumptions:

1. There is a core set of software titles loaded on each PC within the organization, resulting in an average number of titles per unit.

2. There is a gap that exists between what purchasing records can prove has been purchased and what an autoscanning system will report as currently installed. This gap is generally due to policies that allow employees to purchase software on credit cards and report those expenses on expense reports and/or policies seeking to streamline purchasing that allow the purchasing of up to a certain dollar amount without having to create a purchase order.

3. There is a finite probability of being audited and that the result of the audit would be negative.

4. The negative result of an audit would contribute to a tarnished image and would therefore impact revenue and profitability

5. Given a gap between software purchasing records and software autodiscovered, the client chooses to repurchase a portion of that gap to demonstrate a high degree of compliance.

The equation used to predict the annual benefit is as follows:

$$\frac{IE \times \left(\left(\left(SW \times S \times C \times F\right) + \left(NP \times AR \times OM\right)\right) \times A - \left(\left(1 - SP\right) \times SW \times S \times C \times RE\right)\right)}{R}$$

Where:

IE = ITAM effectiveness
SW = Average number of major software titles per unit
S = Total number of seats, or units on which software is installed
C = Average cost per major software title
F = Percentage of the installed software base that is subject to fine given an audit (certainly not the entire installed software base would be subject to fine if audited). This value defaults to (1-**SP**)
A = Probability of being audited and having that audit yield a negative outcome
NP = Percentage of revenue lost due to negative press surrounding an audit
AR = Annual revenue
OM = Annual operating margin
SP = Percentage of installed software base that can be reconciled to purchasing records
RE = Percentage of installed software base that cannot be reconciled to purchasing records that is likely to be repurchased to show compliance
R = refresh rate, in years

In general, there are three primary terms to the equation. The first term attempts to calculate what would be the cost of an audit that results in a negative outcome. An audit that does not result in a negative outcome does not generate appreciable cost (other than the cost of cooperating with the audit). In the event no audit is performed, no cost would be incurred and therefore no benefit in having avoided that cost would accrue. The second term of the equation attempts to isolate the impact of a loss of revenue due to negative press surrounding the negative outcome of an audit. Again, if no audit occurs then there is no loss and therefore no benefit in having avoided the loss. The third term calculates the impact of having performed a reconciliation, just to highlight a gap between what software could be reconciled against purchasing and what software was autodiscovered. Once that gap has been highlighted, the company can choose to repurchase a portion of the software to be able to demonstrate compliance, ignore the issue, or remove enough software from the installed base to eliminate the gap. If the company chooses to ignore the issue, then the sheer existence of the results of the reconciliation exercise, that show a gap, is expected to increase the probability of audit.

The following values were used in the model:

IE = 70%
SW = 10
S = (variable)
C = $100.00
F = 50%
A = 50%
NP = 0.1%
AR = $1B
OM = 10%
SP = 70%
RE = 50%
R = 3

Again numbers were chosen to be conservative. For example, choosing 50% as the probability of audit. Most organizations would probably assess a lower probability than 50%. Also, for some organizations 70% ability to cover software found with proof of purchase may be conservative (overstated), given common trends allowing purchasing of small dollar items without having to go through purchasing. As far as revenue hit, unless your company sells primarily to the software publishing industry, the likelihood of significant revenue impact directly attributable to a negative software audit is expected to be low. In essence, most clients' companies are likely in a similar position.

Primary risks:

1. Very high risk of not being able to deliver full reconciliation due to lack of records
2. Risk of raising the probability of audit by highlighting the gap that exists between the installed software base covered by purchasing records and the installed software autodiscovered. This would cause the benefit to not only potentially go to zero, but it could go negative as well.

Risk points used in the model:

Low – 0%
Most likely – 100%
High – 100%

Risks were modeled conservatively. The first risk is so significant that it was factored directly into the benefit equation. The second risk is addressed by setting the low risk point to zero.

Warranty Tracking

Benefit modeling assumptions:

1. The company tends to enter into maintenance contracts and expects the maintenance vendor to carry out the warranty (for equipment under warranty) and the company tends to negotiate consideration for equipment under warranty when contracting for maintenance.

2. There is an overlap of some percentage of devices where the devices are still under warranty yet the organization cannot substantiate the warranty status, resulting in less than optimal consideration from the maintenance vendor when contracting for maintenance.

The equation used to predict the annual benefit is as follows:

$$IE \times \frac{W \times (S + Sv) \times C_M \times Ov}{R}$$

Where:

IE = ITAM effectiveness
W = average warranty period purchased, in years
S = Number of "seats"
Sv = Number of servers
C_M = Average cost of maintenance, per unit (seat-server)
Ov = Percentage of installed based expected to be overlapping (under maintenance and warranty simultaneously) yet unsubstantiated
R = refresh rate, in years

The following values were used in the model:

IE = 70%
W = 3 years
S = (variable)
Sv = (variable)
C_M = $180.00
Ov = 30%
R = 3 years

The numbers chosen may represent a generous view of the potential benefit and they may not, depending on the organization. The 30% overlap figure is the primary driver of potential benefit. Where organizations are successful at contracting for maintenance with reasonable consideration for equipment under warranty, the potential benefit from ITAM is likely to be nominal. Theoretically, for organizations purchasing three-year warranties and also refreshing on a three-year period, there should never be a time when the unit is placed under maintenance without realizing that it is also under warranty. The benefit from ITAM is derived from those units where maintenance is contracted and the organization failed to realize the units were still under warranty and therefore failed to capitalize on the opportunity to negotiate consideration. The $180.00 figure is a typical cost for infrastructure maintenance (servers and seats) per unit per year.

Primary risks:

1. Accuracy or completeness of data may be insufficient to assist in improved warranty tracking and closure against maintenance contracts.
2. IT MUST change business habits to actually use the data when contracting. Risk is that IT will not change its habits rendering the data of no value (because they simply don't use it).

Risk points used in the model:

Low – 10%
Most likely – 75%
High – 100%

In general, risks to the benefit were modeled conservatively since the risks are real and, if not mitigated successfully, can cancel the benefit entirely.

1 January 2008

Improved 1st Level Closure Rates at the Help Desk

Benefit modeling assumptions:

1. The company operates a multi-level help desk where attempts are made to close calls at the first level.

2. Users tend to call the help desk for support.

The equation used to predict the annual benefit is as follows:

$$IE \times Cv \times (1 - L_1) \times C_2 \times 12 \times I$$

Where:

IE = ITAM effectiveness
Cv = average monthly call volume
L_1 = Current 1st level closure rate
C_2 = Cost to resolve a call at 2nd+ level (includes unnecessary dispatches)
I = Expected percentage improvement over current state

The following values were used in the model:

IE = 70%
Cv = 1 call per user per month
L_1= 60%
C_2 = $75.00
I = 15% (resulting in a final **L_1** of 69%)

The current first level closure rate excludes obvious dispatch calls such as requests for installs and/or moves. The numbers chosen are representative of an average organization operating a well-structured help desk. It is important to note that the expected improvement was set to 15%, meaning that the 60% current number could be increased by 15%, yielding a final first level closure rate of 69% (60 x 1.15 = 69).

Primary risks:

1. Accuracy or completeness of data may be insufficient to assist in HD improvement of 1st level closure rate
2. HD resources MUST change business habits to actually use the data during 1st level resolution. Risk is that HD resources will not change their habits rendering the data of no value (because they simply don't use it).

Risk points used in the model:

Low – 10%
Most likely – 75%
High – 100%

In general, risks to the benefit were modeled conservatively since the risks are real and, if not mitigated successfully, can cancel the benefit entirely.

1 January 2008

Improved 1st Dispatch Solved Rates for IMAC Dispatches

Benefit modeling assumptions:

The company operates a multi-level help desk where attempts are made to close calls at the first level.

The equation used to predict the annual benefit is as follows:

$$IE \times Ic \times U \times Ci \times C \times I$$

Where:

IE = ITAM effectiveness
Ic = Average number of IMAC actions per employee per year
U = number of users
Ci = Percentage of IMAC actions that could benefit from asset information (not all would be helped by improved asset information)
C = Average cost per IMAC trip to the asset
I = Expected improvement in trips per IMAC action rate (moving toward only one trip per IMAC action, eliminating the common "scouting" trip)

The following values were used in the model:

IE = 70%
Ic = 0.6
U = (variable, set equal to number of seats)
Ci = 50%
C = $200.00
I = 10%

The numbers were chosen to represent industry averages. The 10% expected improvement number was chosen as a reasonably conservative expectation, given enough asset information to do appropriate planning prior to visiting the asset. The $200.00 per trip is an industry average, and factors in both campus (local) visits as well as remote visits.

Primary risks:

1. Accuracy or completeness of data may be insufficient to assist in IMAC planning / execution
2. IMAC resources MUST change business habits to include a data evaluation / planning phase before taking the physical trip to the asset. Risk is that IMAC resources will not change their habits rendering the data of no value (because they simply don't use it).

Risk points used in the model:

Low – 10%
Most likely – 75%
High – 100%

In general, risks to the benefit were modeled conservatively since the risks are real and, if not mitigated successfully, can cancel the benefit entirely.

Results

Results are depicted in Figure 1. The figure shows the normalized, risk-adjusted value that can be produced by each of the six benefits modeled. The values have been risk-adjusted, which means that if a company succeeds in being average at mitigating the risks to receiving these benefits, then the values shown in Figure 1 should be expected. Keep in mind the normalized value, shown as dollars per seat per month over a 36-month period, does not take into account the cost of the asset management solution. To calculate ROI, you must use the following equation:

$$ROI = \frac{NPV(V \times S \times 36) - NPV(C)}{NPV(C)}$$

Where:

NPV = net present value function
V = normalized value, from Figure 1
S = total number of seats for your company
C = total cost of the solution you are considering employing for asset management, to include software, installation, maintenance, and operation for 36 months

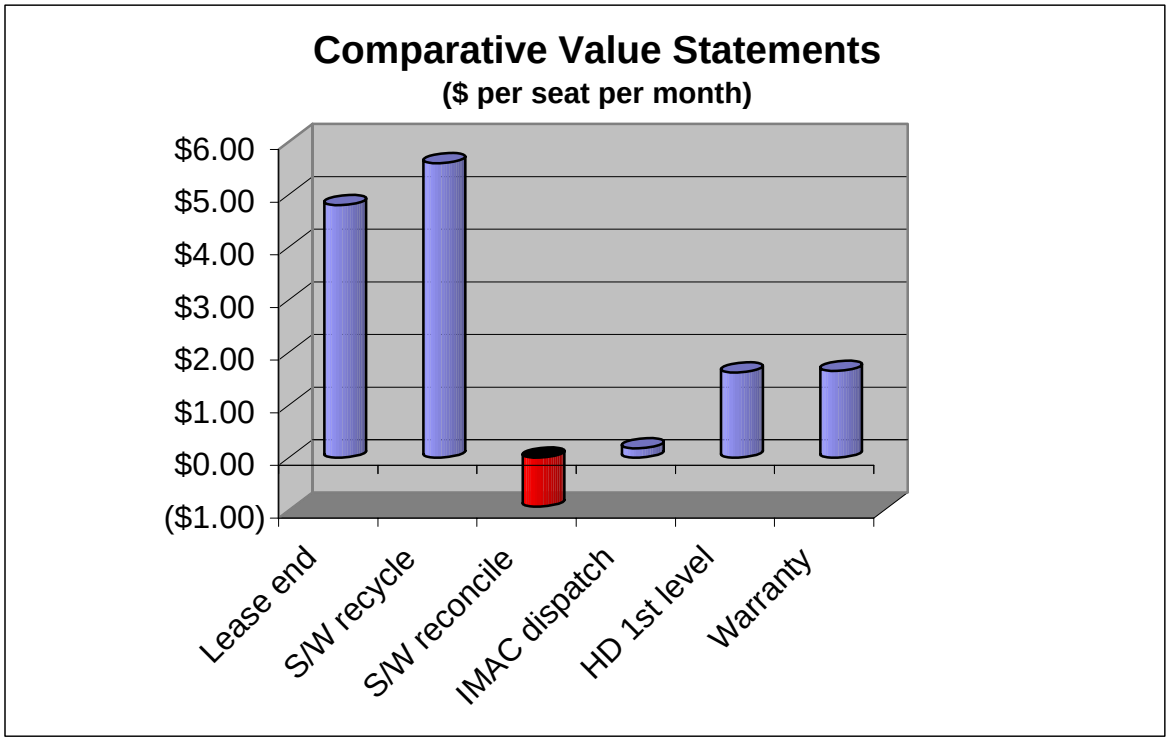

Figure 1. Comparative Value Statements

Software License Reconciliation

Probably the most striking result is the negative value statement of Software License Reconciliation for the values used (gap = 30% and buy-back = 50%). Keep in mind the negative value statement is in advance of any costs necessary to implement the system to actually perform the reconciliation. That is, when those costs are included, the expected ROI would be more negative. This result is significant since there are many companies today primarily interested in pursuing asset management as a means of demonstrating software license compliance. Yet many companies presently pursuing this course of action are likely facing a negative ROI. The main reason the value statement, and therefore the ROI, is negative is the fact that the probability of audit and the resulting fine yield an anticipated loss number which is much less than that portion of the installed software base which cannot be reconciled to purchasing records (the gap). So, whether a company chooses to repurchase a portion of that gap (buy-back), or chooses to ignore the issue (which has the effect of raising the probability of audit), the act of reconciling purchasing records to autodiscovered software is likely to place the company in a worse position.

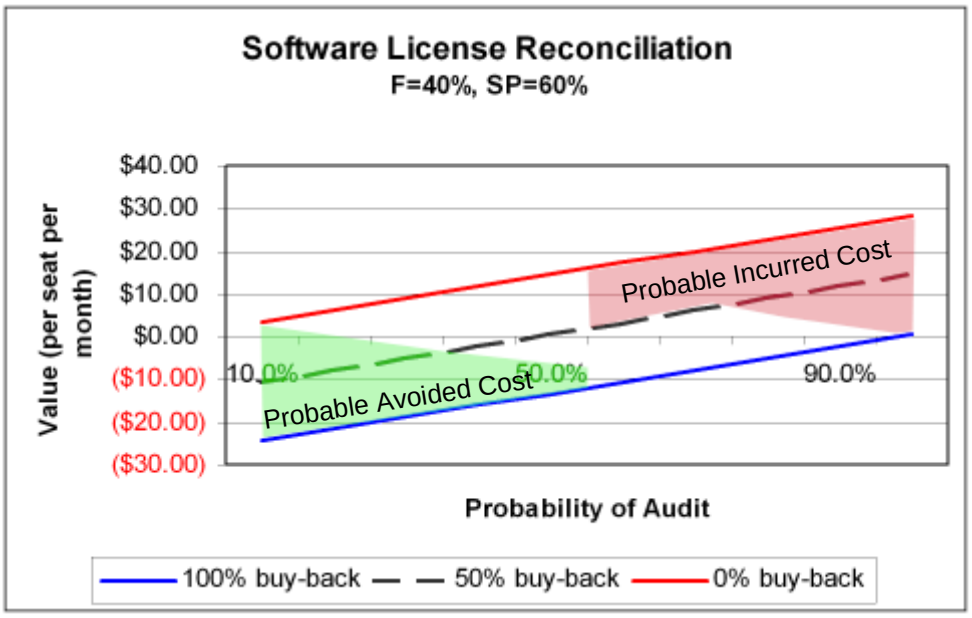

Figure 2. Value of Software License Reconciliation versus Probability of Audit

Consider Figure 2, where the risk-adjusted value of Software License Reconciliation is plotted against the probability of an audit with a negative outcome. For this chart, the percentage of installed software base at risk of fine (F) is set to 40% while the percentage of installed software base that can be reconciled to purchasing records (SP) is set to 60%. Two primary regions are shown. Green marks the region of Probable Avoided Cost while red marks the region of Probable Incurred Cost. That is, for probabilities of audit less than 50%, you are more likely to avoid audit, so any money spent on that endeavor is likely to produce benefit (the benefit of having not incurred the fines and penalties of an audit resulting in a negative outcome). However, as you progress beyond 50%, you are now more likely to incur audit resulting in a negative outcome, therefore any money spent in pursuit of averting the audit is more likely to be in vain as you stand to be audited anyway. The goal should be to move left on the chart, staying above the $0.00 value line. Stated differently, your actions should be chosen to reduce the likelihood of audit resulting in negative outcome.

Also plotted in Figure 2 are three curves – the 100% buy-back and 0% buy-back curve, and the 50% buy-back curve. Buy-back represents the act of repurchasing none, some, or all, of the gap that is highlighted by a reconciliation of purchasing records to autodiscovered software. The green region represents the region of "safe" operation for pursuing Software License Reconciliation. For instance, if you assess a probability of audit yielding a negative outcome at 10%, then you can most likely safely operate at the 0% buy-back line (doing nothing about the gap that exists). As your assessment of audit resulting in negative outcome increases, you are less likely to be safe ignoring the gap, and you will need to begin to consider having to repurchase a portion to produce a lower probability of audit (move left on the chart). At higher probabilities of audit, ignoring the gap is likely to move you to the right on the chart – possibly into the region of Probable Incurred Cost.

The red region represents the portion of the chart where, if you operate, you are likely to incur penalties and fines from an audit resulting in a negative outcome. Even if you have spent money to avoid the audit, you are now increasingly likely to have an audit with a negative outcome resulting in actual incurred cost. In this region of the chart, the value statement may represent a close approximation to the actual cost you stand to incur. At the point you incur the cost, the value statement represented by the chart becomes negative. That is, you were not successful in averting the audit or the resulting penalties and fines. The red zone shows that for a probability of audit greater than 50% but less than roughly 70%, that if you choose to operate between 0%-50% buy-back you are most likely going to increase the probability of audit to the point where you actually incur the fines and penalties. Then, above 70% the red zone begins to close even to the point of operating at 100% buy-back, because audit (with a negative outcome) is now approaching 100% probability (certainty), meaning you're going to pay fines no matter what you do at that point.

Although Figure 2 shows a "safe" zone in green, note that the probable costs avoided are those of an audit with negative outcome. The value of performing Software License Reconciliation is mostly negative in that zone, meaning you will be buying back a portion of the gap in order to remain in the "safe" zone of operation. You will be incurring costs that you would not have otherwise incurred in order to avert the possible fines, penalties, and bad press surrounding an audit resulting in a negative outcome. For low probabilities of audit resulting in a negative outcome, there should most likely not be motivation to change anything you are doing today – that is, why pursue Software License Reconciliation when you are currently self-assessing such a low probability of audit resulting in negative outcome?

The white areas on the graph represent potential areas of benefit, however caution should be exercised. The primary course of action should be to yield a move to the left – lowering the probability of audit resulting in a negative outcome. You are advised to strongly consider at what buy-back point you should operate in order to create movement to the left. If you choose too low a buy-back point, you are most likely going to move to the right, actually increasing your probability of audit, yielding a net-negative pursuit. Therefore, consideration for optimum buy-back points at which to operate reduces the white region to potentially very few points of true benefit opportunity in pursuing Software License Reconciliation.

Another consideration is to take a bit of a draconian tack – remove licenses for which there is no purchasing record. At first that sounds like a move that might just work, however the question then becomes, "from which employee's machine do we remove Word?" If there is a 30% shortfall in purchasing records to cover Word, or some other ubiquitous piece of software, then how do you decide who keeps it and who loses it? Most likely purchasing records don't track to the individual employee, and even if they track to the cost center there still is unlikely a "fair" way of deciding which machines to target for software removal. That is, of course, not to mention the cost of the removal solution and the probable backlash of support calls created by inadvertent removal of an important DLL or other shared resource on those machines where software was removed.

The bottom line – this model shows the pursuit of software license reconciliation to be a net negative in all but the most extreme cases.

Lease End Management

Less striking though equally important is the result that companies that lease a large portion of their distributed base stand to see a strong value statement from asset management. Lease end management is often touted as a benefit of asset management, possibly even a prerequisite to leasing distributed assets, and this model validates that claim. To succeed in performing lease end management, an asset management system must minimally be able to deliver the following information accurately and in a timely fashion:

- Where the asset is and who has it
- Its original configuration, or what has changed since its original configuration

Additionally, the asset management system must keep track of which lease schedule each asset is on. Assuming notification from the lease company of a lease schedule that is coming to term, a query against all assets on that lease schedule should yield the location and configuration details. From there it is a matter of notification and scheduling (logistics) to handle the lease-end process. Although the logistics involved in managing an asset at the end of its lease may be non-trivial, all the asset management system must provide is the asset's whereabouts and its original configuration. If that can be done for a risk-adjusted cost of roughly $4.00 per seat per month (36 months) or less, then this model shows a positive ROI for pursuing the lease end management benefit of asset management.

Software Recycling

The highest risk-adjusted value potential is in Software Recycling – the act of reclaiming software licenses when an asset is removed from service. Unlike lease end management, which stands to benefit companies that primarily lease their distributed assets, Software Recycling stands to benefit almost any company that is not currently performing this function – especially companies that have an active master image program (where a master image is "burned" on to each new desktop or laptop at a central configuration facility). In addition to showing a higher potential risk-adjusted value, Software Recycling is also less complicated than lease end management, from an asset management system requirements perspective. Recycling of software licenses requires a unit to be scanned for active software titles just prior to the hard drive's being cleared (standard procedure for most companies when decommissioning an asset). The list of titles is forwarded to the individual or group responsible for managing software purchase / volume license agreements. Of course contractual consideration for "used" software must have already been negotiated into the master license agreement. Each month when the agreement is reconciled, new licenses installed are reconciled with those licenses removed from service and the difference is used to calculate the amount due. To deliver the Software Recycling value proposition, an asset management system really need not exist at all. What is minimally required is a defined way to identify assets that are to be taken from service, and a process by which that physically happens. Given that, the additional steps of scanning the asset for software, then forwarding the results requires only sufficient license to a reputable software scanning tool. Expressly for the purposes of delivering the recycling of software licenses, there is no need to keep track of the asset during its life, and therefore the typical investment in complex processes, data feeds, tracking and reporting tools is negated. Therefore, it is highly reasonable to expect to be able to deliver this value proposition for a risk-adjusted cost of less than $5.00 per seat per month over the typical 36-month life cycle of the asset, resulting in a potentially attractive ROI.

Figure 1 shows each of these benefits to yield a risk-adjusted value of just over $1.00 per seat per month over the 36-month period. The interesting consideration with these two value statements is "who is the beneficiary?" If your company presently has a maintenance contract, then the beneficiary of better warranty tracking is actually the maintenance vendor, and you must assume the vendor has built warranty reimbursements into its pricing, meaning that you should expect negligible value from improved warranty tracking. Arguably, at contract negotiation time, you may stand to have a better position given credible reports on in-warranty versus out-of-warranty equipment, however the price reduction you gain for the delta between the vendor's pricing model and your "reality" may be negligible – and it may even cause a price increase (as the vendor thanks you for offering "hard" data to correct their overly generous pricing model.)

Similar logic applies to the help desk benefit. If your company outsources help desk services, then the outsource vendor is the beneficiary of the value statement.

Therefore, if yours is a company that performs its own maintenance and your company operates its own help desk, then you stand to gain a risk-adjusted additional value of nearly $3.00 per seat per month. Otherwise, your vendor(s) stand to benefit by all, or some portion, of that amount.

Better IMAC Dispatch per Resolution Rate

Figure 1 shows the potential risk-adjusted value given standard steady-state IMAC activity and the value, less than $1.00 per seat per month, would appear to be insufficient to pursue. However, this same benefit – the act of increasing the first pass yield rate of dispatched resources by enabling better planning, applies to project work as well. The model was run for a project environment, using the following parameters:

IE = 70%
Ic = 2.0
U = (variable, set equal to number of seats)
Ci = 100%
C = $200.00
I = 30%

Two IMAC events per person per year suggest an environment with a high degree of large-scale project activity. Choosing 100% as the portion of that activity that can stand to benefit from planning information allows the primary focus to be on project work (the underlying assumption is that all projects that touch the desktop can benefit from better planning data). The 30% improvement factor may be aggressive, but was chosen to help bound the value statement (between a steady-state normal change environment and a high volume, large scale project environment).

When those factors are run, the resulting risk-adjusted value statement is $3.60 per seat per month – a potentially attractive number. However, keep in mind that large-scale project environments are generally not the norm – even in a company where that activity is going on presently. That is, most companies tend not to sustain large-scale distributed projects year after year. Therefore, when calculating ROI, use the number of months the large-scale project activity is assumed to last. For example, assuming a year's worth of roll-out activity that will affect the distributed desktops of almost all users. The ROI equation would then become:

$$ROI = \frac{NPV(3.60 \times S \times 12) - NPV(C)}{NPV(C)}$$

In a 5,000-seat environment as described above, the asset management solution would need to cost less than $216 K to yield a positive ROI. That's $216 K over the entire life cycle of the asset management system (given no other expected value statements), including all software license costs, staffing costs, and software maintenance costs. If large-scale project work tends not to be the norm (keep in mind "large-scale" means that substantially every distributed desktop will be physically "touched" in some way over the year, even if by many small projects), it may actually be more cost effective to plan for a physical inventory to support the project(s) individually.

CONCLUSION

The primary conclusion to draw is that if you are considering asset management to perform Software License Reconciliation in order to demonstrate software license compliance – then you may want to reconsider. That is, unless your company has "air-tight" purchasing practices that can yield sufficient records to cover the installed software base – because most software autoscanning systems will find every occurrence. Instead, focus on ways of lowering the probability of audit. That, after all, should be the principal focus – reduce the risk of audit. By pursuing Software License Reconciliation, you are usually trying to drive the probability of audit to zero, but in so doing you are likely to increase that probability – and cost your company money doing it! You very well may, in effect, be spending money and increasing risk – a net negative pursuit. As in any event risk, there is always a finite probability of the event's occurring, so the emphasis should be on minimizing the probability. Focus the funding on strengthening relationships with your primary software suppliers. Install an autoscanning system to monitor the installed base of distributed software (along with other benefits), but don't pursue reconciling that information to purchasing records. Tie two value propositions together – use Software Recycling to address the software license compliance issue. That is, pursuing Software Recycling by negotiating residual value consideration for "used" software licenses may actually raise the probability of compliance audit. "If you're going to play that game, we're going to look more closely at your licensing practices for any compliance issues." If that is a concern of your company, then choose to redirect the value of Software Recycling to reduce the probability of a compliance audit. Keep track of all licenses removed from service and use those records to thwart an audit attempt. "As long as you want to focus on the value of licenses which we're confident we paid for but can't demonstrate through our purchasing records, there is the matter of the residual value of all this software we have removed from service that we would like to discuss." Given the potential value statement of Software Recycling, that tactic could easily stalemate an audit, resulting in cheap, and effective, insurance.

Another conclusion is to consider the beneficiary. You need to stop and ask yourself, why do we think we need to pursue asset management? If the answer is to lower IT operational costs by increasing efficiency, then ask yourself the next question – whose problem is that? If you outsource, it's probably the problem of your outsource vendor. Why, then, dictate an asset management solution as part of the outsource deal? All you are doing is unnecessarily increasing the cost of the deal. The outsource vendor, in order to offer efficient service, should already have concluded that it must maintain asset data and such thought should be reflected in the pricing. Even if it is not, as long as the vendor meets your cost reduction expectations – who cares if they use asset management or not? At most, if you are concerned with the credibility of the prospective vendor's efficiency and price claims, then ask how that vendor yields the cost advantages they claim and look for evidence of a well though-out asset management/tracking system embedded in their service offering(s). If you see such evidence, then you can feel comfortable that you are dealing with a forward-thinking quality vendor.

Finally, although general thought runs contrary to this statement, to gain the value propositions presented in this paper you do not need an asset management "megasolution". Who has the asset, where is it, what is it, what lease schedule is it on, and what is it's original and current configurations? These questions are generally addressed by a standard asset tracking solution, but with one difference – build in periodic scans using hand held scanners to audit process compliance and restore lost accuracy. The largest potential value statement presented in this paper – Software Recycling – doesn't require asset tracking at all. It requires a localized software scanning tool and a defined process for decommissioning assets.

About the Author

Brett Husselbaugh has over 20 years of experience primarily in the IT industry. He has consulted with over 25 of the leading Fortune 500 companies on strategies for optimizing the IT investment. With experience as both a CIO and a CEO, Brett brings a unique and practical perspective to IT management, promoting the concept of operating as a "business within a business" to deliver measurable value. Brett is a proven business leader, an innovative thinker, a highly effective writer, and an enthusiastic and motivational public speaker.

Brett has experience as founder and CEO of TOBEK Technical Services, an IT Asset Management firm which he started with no outside investment and grew to 80 people in three years. He then positioned the firm and sold it to Inacom, a Fortune 500 company. Brett also has experience as a CIO, Managing Partner for Managed Services, VP of Strategic Development, VP of Services R&D, Principal Consultant, Industry Analyst, and Program Manager.

Brett has published several magazine articles as well as over 50 industry white and position papers. He has spoken on numerous occasions to audiences of senior and executive management teams on optimizing IT investment, developing strategy, and effective IT management.

Brett holds a Masters of Science in Electrical Engineering from the University of Texas at Arlington and a Bachelors of Science in Electrical Engineering from the University of Maryland at College Park. He is currently a member of American Mensa.

Other Papers by the Author in This Series

2000, “Total Asset Management. Implementation Best Practices”
1998, “Total Asset Management. Phase III Metrics – Definition and Usage”
1997, “Total Asset Management. Phase II (Perpetual Inventory) Implementation Guide”
1996, “Total Asset Management. Benefit Analysis and Implementation Guide”

All papers can be viewed and downloaded from the publication section of www.husselbaugh.com.

William Brett Husselbaugh
http://www.husselbaugh.com