

## **Quantifying ROI: Building the Business Case for IT and Software Asset Management**

### **Benefits of IT and Software Asset Management**

In today's increasingly competitive business environment, companies are realizing they can no longer afford to treat IT and Software Asset Management (IT/SAM) as an initiative to implement "when time allows." It is rapidly becoming a strategic imperative compelled by the need to keep IT costs in line and manage the risk associated with IT assets, while achieving maximum value from existing and future IT investments. Gartner Research validates this trend, estimating that "Enterprises that systematically manage the life cycle of their IT assets will reduce cost per asset by as much as 30 percent during the first year, and between 5 percent and 10 percent annually during the next five years."<sup>1</sup>

As more and more organizations embrace IT/SAM practices, they find that the savings generated by these programs usually pay for the necessary investment many times over. Specifically, the implementation of effective IT/SAM programs has helped companies:

- 1) **Reduce TCO related to IT assets** by eliminating time-consuming manual audits, determining where an organization is overspending on software licenses and reducing help desk costs.
- 2) **Manage technology change** by developing software procurement models that map to current and future needs and by collecting data that assists with technology migration and upgrade planning.
- 3) **Minimize security risks** by preventing the use of unauthorized software and enforcing desktop standards.
- 4) **Limit compliance risk** by identifying PCs with unlicensed applications, preventing employees from using unlicensed software and producing accurate reports to vendors in the event of an audit.

Although the reasons for adopting an IT/SAM program are many, IT managers frequently have a difficult time justifying an increase in spending to procure yet another application that promises to deliver a panacea of business benefits, while making their jobs easier—much less develop and implement processes and dedicate personnel to support that application. IT managers are consequently required to demonstrate an unqualified and immediate return on any IT investment.

The purpose of this document is to quantify the immediate and ongoing savings and investment associated with the implementation of a best-of-breed IT/SAM tool, as well as to estimate the return on investment (ROI) based on those measures. After reading this document, you should be able to quantify in approximate terms your own organization's ROI for implementing an IT/SAM solution.

**Note:** *It is important to keep in mind that an IT/SAM tool is only one component—albeit a critical one—of a successful IT/SAM program. This document deals specifically with the ROI that can be achieved by implementing an IT/SAM tool—that is, technology that provides the data and insight necessary to carry out a successful IT/SAM program.*

<sup>1</sup> Patricia Adams, "IT Asset Management Stages: Stairway to Success" presentation, Gartner IT Asset Management and TCO Summit, 2003

## Savings Associated with IT and Software Asset Management

In order to compute the return on investment, you must first identify and calculate the savings realized by implementing an effective IT/SAM tool.

### Eliminating manual inventories

Today, many companies conduct an inventory of their hardware and software assets by physically visiting individual workstations and documenting the hardware configurations, along with the software that is installed. These manual inventories can be triggered by a number of events, including vendor audits, software purchasing cycles, or technology upgrades or migrations. This information is generally recorded in a spreadsheet and maintained by someone in the IT department or helpdesk. Not only is this an error-prone and non-scalable procedure, it can be extremely time-consuming and costly, depending on the size of the organization, the complexity of the IT environment, and the frequency with which an organization conducts such inventories. Furthermore, organizations are limited in their ability to report on this information effectively.

An automated IT/SAM tool eliminates the human resource costs associated with conducting manual PC inventories by intelligently discovering, recognizing and reporting on all the hardware and software installed across a network. A tool should also provide a central location where software licensing information can be stored and reconciled against actual installations. And, with the right tool, this data can be generated at any time and reviewed in formats that best match the organization's IT and purchasing processes.

Annual savings =								
Number of PCs in organization	X	Number of inventories per year	X	Minutes to manually inventory a PC	X	Cost of IT tech per hour	X	1 hour/60 minutes

### Eliminating or re-allocating underutilized software

According to Gartner Research, 41.9% of CRM licenses purchased worldwide go unused<sup>2</sup>—just one example of how companies often invest heavily in software that is not utilized or, perhaps more commonly, underutilized. Companies frequently buy software licenses for everyone in the organization because they are concerned about compliance or, more likely, because they do not have insight into which applications are actually being used—or used enough—to justify ownership of the licenses. This means that much of the software purchased goes unused—a colossal waste of money. Companies are also paying for maintenance from software vendors—not to mention internal help desk support—for unused and underutilized licenses, which further adds to the cost of ownership.

An IT/SAM program should include a tool that collects and reports on software usage, allowing organizations to determine which licenses are being used, by whom, and how often. This information allows IT and procurement departments to forecast license needs more accurately, select a licensing plan that matches actual usage patterns and determine to whom various licenses should be allocated. Likewise, if some licenses are being underutilized, they can be reassigned to individuals that are more likely to use them without increased licensing costs.

Annual savings =				
Average cost of license (including maintenance)	X	Number of unused licenses per PC	X	Number of PCs in organization

### Reducing help desk costs

Gartner Research estimates that up to 50% of time spent on a help desk call is associated with trying to determine the configuration of the user's PC. This occurs when help desk staff don't have immediate access to this information and are required to lead callers through a series of steps to obtain it. In addition, having non-standard desktops within an organization can be costly, as support personnel need to familiarize themselves with multiple versions of a particular application or learn software from different publishers that serve the same general purpose. Other help desk costs include those issues related to supporting unauthorized applications (such as chat or P2P programs) that may introduce

security or machine performance issues; the costs of troubleshooting and resolving such issues could otherwise be eliminated if the applications were not installed and/or launched in the first place.

Any IT/SAM program should include a tool that allows helpdesk staff to gain immediate visibility into individual users' desktops to view their specific hardware configurations such as unused disk space, RAM, processor speed and the existence of video cards/drivers, as well as Service Pack installations or software that could be impacting PC performance or causing other user issues. An IT/SAM tool should provide granular insight into the software and versions installed on desktops, so decisions can be made as to whether standardization will save money, even if it means upgrading some users to a newer version or purchasing new software to create a common environment among all employees. IT administrators should also have the ability to limit the launch of certain types of applications that could potentially introduce viruses, spy ware or other security threats. Together, these measures can significantly reduce the average time spent on support calls, as well as support costs related to preventable problems.

$$\text{Annual savings} = \text{Number of PCs in organization} \times \text{Annual number of support calls per PC} \times \text{Average cost per support call} \times \text{Estimated \% reduction in support costs}$$

### Avoiding license compliance risks and penalties

Gartner Research estimates that through 2008, 70% of mid- to large-sized organizations will undergo an external software audit.<sup>3</sup> Many organizations are concerned about the outcome of a software audit, due to their lack of insight into the gap between how much software has been installed on users' desktops and how many licenses have actually been purchased. Additionally, if companies can't provide information that corroborates their licensing agreements when a software vendor makes an ad-hoc request, the risk of a formal audit increases significantly. Although the costs of an audit can be tricky to quantify, the costs of being found out of compliance can be staggering: twice the retail cost of regular licenses needed to regain compliance, penalties of up to \$150,000 per infringed-upon application and litigation fees. Furthermore, there are "soft" costs that are difficult to quantify but can be particularly damaging, such as the disruption to daily business operations and negative PR.

An IT/SAM tool should offer the ability to reconcile the number of licenses installed—or, in the case of concurrent licenses, in use—throughout the organization with actual purchasing data, so that companies can true-up any desktops that are out of compliance. The tool should give you the ability to block the launch of unlicensed applications in order to avoid future risk of non-compliance. And, if you have any applications licensed concurrently, you should consider a tool that helps you ensure that the number of applications running at any given time does not exceed the number of concurrent licenses you own. Together, these capabilities will give you more confidence in your ability to demonstrate software license compliance in the event of an audit.

$$\text{Risk-adjusted savings} = \left[ \begin{aligned} &\text{Probability of software audit} \times \left[ \begin{aligned} &\text{Number of PCs in organization} \times \text{Estimated number of unlicensed applications per PC} \times 2 \times \text{Average cost of license (including maintenance)} \end{aligned} \right] \\ &+ \text{Infringement penalty} + \text{Cost of litigation} + \text{Cost of business disruption} \end{aligned} \right]$$

*Note: Computing the savings related to reducing the risk of non-compliance is difficult to quantify, as it will vary depending on your organization's unique circumstances; but the variables are included for the sake of illustrating how you might go about calculating this component.*

**A brief note on true-up costs:** Some organizations argue that when computing the ROI of adopting an IT/SAM program, they should include the costs of true-ing up any unlicensed software necessary to become compliant. In some scenarios, this cost can be significant, producing what appears to be a negative ROI. However, this cost should be regarded as a balance sheet liability that existed prior to the adoption of the IT/SAM program. The money is owed to the software publisher by law, whether or not an IT/SAM program is implemented and the discrepancy is discovered; therefore, it should not be considered in the ROI computation.

<sup>3</sup>Jack Heine and Alvin Park, "The IT Asset Management Scenario" presentation, Gartner IT and Software Asset Management Summit, 2005

### Minimizing “hidden” costs related to freeware/shareware

Not only can organizations recognize savings related to legitimately licensed software, but they can also minimize costly risks associated with software that is classified as freeware or shareware. Most organizations do not account for such costs, due to the lack of insight into employees’ usage of such programs. However, many organizations, when provided the means, realize that business productivity is being dampened by the use of chat programs, games and P2P applications among employees.

Security risks can also be introduced through the unintentional download of executables that carry viruses or spy ware, and it is often difficult to determine whether employees have the required antivirus software or security patches installed on their machines. In addition, many companies have found that the downloading and sharing of large files such as MP3s can negatively impact server resources and network performance. Finally, because companies can be held accountable for the activities of their employees, the use of unmonitored chat programs to exchange sensitive data can expose companies in regulated industries (such as health care, finance, law or government) to significant liability.

An IT/SAM program will help you limit these costs and risks if it includes a tool that allows you to discover the extent to which unauthorized applications are used within your organization, as well as block the use of applications you deem a threat. A good tool will also be able tell you whether any of your users have failed to install a required security program or patch, so you can take corrective action to address such vulnerabilities.

Annual savings =

*Unfortunately, due to the ambiguous nature of the above risks, estimating hard-dollar savings associated with minimizing or eliminating these risks is very difficult. However, it is extremely important to take into account the benefits that can be achieved by protecting your organization against such threats.*

### Investment Required to Implement an IT/SAM Tool

Now that the savings associated with an IT/SAM tool have been discussed, you must identify hard dollar and resource investments your company must make to successfully implement the tool.

#### Initial purchase of product

In order to recognize significant savings from an IT/SAM program, it is necessary to purchase an IT/SAM tool that provides functionality that includes (but is not limited to) hardware and software inventory, reconciliation of inventory data with purchasing data, software usage metering, application control, and robust, comprehensive reporting. IT/SAM tools are generally licensed on a per-seat basis based on the number of desktops (whether in-network or remote) in your organization. You should also consider future growth of your organization and the resulting addition of more desktops to your network, as well as ongoing maintenance fees.

Year 1 investment =

$$\text{Number of PCs in organization} \times \left( \text{Cost per seat of ITAM tool} + \text{Annual maintenance per seat} \right)$$

Subsequent years’ investment =

$$\text{Number of PCs in organization} + \text{Annual maintenance per seat}$$

#### Tool and process implementation

As any IT manager is aware, there are unavoidable costs associated with learning, deploying and maintaining any tool within an organization’s infrastructure. And all too often, technology solutions are implemented, but the processes needed to support the tool and enable business decisions are neglected. In order to get the most out of the investment, it is necessary to establish a set of objectives and processes around IT/SAM that address the following types of questions:

- What specific data should be collected by the tool—and how frequently—in order to make key decisions?
- Does the tool leverage industry standard technologies (such as SQL Server, client/server or web service architectures, WMI, etc.)
- What kind of information should be made available to whom?
- What are the parameters for evaluating results?
- Who will be responsible for various tasks?
- How will key findings and recommendations be communicated to decision-makers?



The investment required to implement a tool and its related processes are typically in the form of human resources and opportunity costs relative to other initiatives within the IT organization. However, depending on the skills, priorities and capacity of your IT organization, there may be hard dollars involved with hiring a consultant or service provider to assist with tool and/or process implementation.

$$\text{Year 1 investment} = \left( \text{Cost of IT tech per hour} \times \text{Number of hours required for training and deployment} \right) + \left( \text{Cost of dedicated resource to develop and implement processes} \times \text{Number of hours required to develop and implement processes} \right)$$

### **Ongoing administration and process management**

You must also take into account the resources required to administer and maintain the IT/SAM tool and manage its associated processes over time. This involves periodically evaluating the information that is gathered, as well as the effectiveness of the process in terms of achieving the program goals.

$$\text{Annual investment} = \left( \text{Cost of IT tech per hour} \times \text{Number of hours spent administering tool/process} \right)$$

### **Calculating Total Return on Investment (ROI)**

The final step in building a business case for IT and Software Asset Management is to compute your organization's ROI. While people often think ROI involves incremental earnings as a result of a particular investment, in this case, we will use savings in place of earnings. (A penny saved is a penny earned!) To get the percentage return (or ROI), sum all the savings discussed above, subtract the investment required, and finally divide the remainder by the total amount invested.

$$\text{ROI} = (\text{savings} - \text{investment}) \div \text{investment}$$

The chart on the last page of this document shows the computation of ROI over the first three years of a typical company's IT/SAM program using the methods discussed above; in reality, you will want to calculate ROI as far into the future as possible, so that the total lifetime value can be recognized. It is important to note that ROI appears to decrease with subsequent years because the largest investment and savings are seen in the initial year, and your ability to manage your organization's IT assets will improve over time. Therefore, you should compare the savings for any given year to the savings without the program in place, instead of comparing savings year-over-year.

### **Conclusion**

Organizations have a great deal to gain in terms of savings from a relatively small investment in an IT/SAM tool and the processes that support it. The insight obtained from a best-of-breed tool can help companies with a broad range of challenges, including controlling IT costs, planning for new technology roll-outs, managing security risks and remaining compliant with software licensing agreements. While the cost savings vary from organization to organization based on each company's unique situation and needs, an IT/SAM tool is an integral part of any asset management program, and the costs to implement such a tool generally far outweigh the necessary investment.

### **About Express Metrix**

Express Metrix has proven leadership in software license metering and asset management software during more than 11 years of experience focused on this field and through its installed base of over 1,100 active customers. Winner of the 2005 Software Asset Management Partner of the Year award from Microsoft, Express Metrix solutions allow enterprises to ensure software license compliance, plan for technology migrations and software upgrades, and effectively manage their IT assets and budgets.

Express Metrix offers a suite of software asset management tools that provide the streamlined solutions companies need to conduct in-depth analysis and management of desktop PCs and applications. The Express product line includes Express Software Manager Professional®, Express Software Manager Standard®, Express Inventory® and Express Meter®. Express Metrix currently holds Gold Certified Partner status in the Microsoft® Partner Program. More information on Express Metrix can be found on the company's web site at [www.expressmetrix.com](http://www.expressmetrix.com).

<b>SAVINGS</b>	<b>YEAR 1</b>	<b>YEAR 2</b>	<b>YEAR 3</b>	<b>TOTAL</b>
<b>Cost of conducting manual inventories</b>				
Number of PCs in organization	500	530	550	
Number of inventories per year	2	2	2	
Minutes needed to manually inventory a PC	15	15	15	
Cost of IT technician per hour	45	45	45	
<b>Subtotal</b>	<b>11,250</b>	<b>11,925</b>	<b>12,375</b>	<b>35,550</b>
<b>Cost of unnecessary software</b>				
Number of PCs in organization	500	530	550	
Number of unused licenses per PC	1.5	1.5	1.5	
Average cost of license (includes maintenance)	50	50	50	
<b>Subtotal</b>	<b>37,500</b>	<b>39,750</b>	<b>41,250</b>	<b>118,500</b>
<b>Help desk costs</b>				
Number of PCs in organization	500	530	550	
Annual number of support calls per PC	4	4	4	
Average cost per support call	40	40	40	
% reduction in support costs w/ asset mgmt. tool	10%	10%	10%	
<b>Subtotal</b>	<b>8,000</b>	<b>8,480</b>	<b>8,800</b>	<b>25,280</b>
<b>Cost of non-compliance (risk-adjusted)</b>				
Probability of audit	15%			
Number of PCs in organization	500			
Number of unlicensed apps per PC	0.25			
Cost to true-up unlicensed software (2x retail price)	12,500			
Infringement penalties	100,000			
Cost of litigation	50,000			
Cost of business disruption	50,000			
<b>Subtotal</b>	<b>31,875</b>			<b>31,875</b>
<b>Total Savings</b>	<b>88,625</b>	<b>60,155</b>	<b>62,425</b>	<b>211,205</b>

<b>INVESTMENT</b>	<b>YEAR 1</b>	<b>YEAR 2</b>	<b>YEAR 3</b>	<b>TOTAL</b>
<b>Tool purchase</b>				
Number of licenses purchased	500	30	20	
Cost per PC	26	26	26	
<b>Subtotal</b>	<b>13,000</b>	<b>780</b>	<b>520</b>	<b>14,300</b>
<b>Tool maintenance</b>				
Number of PCs in organization	500	500	530	
Annual maintenance cost per PC	0	6	6	
<b>Subtotal</b>	<b>0</b>	<b>3,000</b>	<b>3,180</b>	<b>6,180</b>
<b>Tool &amp; process training/deployment</b>				
Hours needed for training and deployment	12	0	0	
Cost of IT technician per hour	45	45	45	
<b>Subtotal</b>	<b>540</b>	<b>0</b>	<b>0</b>	<b>540</b>
<b>Tool &amp; process administration/maintenance</b>				
Hours needed for setup/maintenance	52	52	52	
Cost of IT technician per hour	45	45	45	
<b>Subtotal</b>	<b>2,340</b>	<b>2,340</b>	<b>2,340</b>	<b>7,020</b>
<b>Total Investment</b>	<b>15,880</b>	<b>6,120</b>	<b>6,040</b>	<b>28,040</b>
<b>RETURN ON INVESTMENT TOTAL</b>	<b>Total 3-year savings</b>			<b>211,205</b>
	<b>Total 3-year investment</b>			<b>28,040</b>
	<b>3-year return on investment</b>			<b>653%</b>



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