

# **ESSENTIALS OF SOFTWARE ASSET MANAGEMENT**

## **POLICIES FOR SOFTWARE EVALUATION, PURCHASING, USAGE & COMPLIANCE MONITORING**

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## CONTENTS

<b>OVERVIEW</b>	3
<b>UNDERSTANDING SOFTWARE AS AN ASSET</b>	3
<b>SARBANES-OXLEY &amp; SOFTWARE MANAGEMENT</b>	4
<b>FORGET “BABY STEPS”</b>	4
<b>ESTABLISH SOFTWARE STANDARDS</b>	5
<b>PERFORM AN IT ASSET INVENTORY</b>	5
<b>MATCH SOFTWARE INSTALLED TO LICENSES ACQUIRED</b>	6
<b>MONITOR THE FREQUENCY OF SOFTWARE USAGE</b>	6
<b>ENFORCE STANDARDS &amp; RECOVER LICENSES</b>	7
<b>CHECK USAGE RIGHTS</b>	7
<b>DEVELOP AND DOCUMENT A PLAN</b>	8
<b>ARE YOU “DEPLOYMENT READY”</b>	8
<b>CALCULATE YOUR SAVINGS</b>	9
<b>RECOMMENDATIONS AND NEXT STEPS</b>	11
<b>TABLES</b>	
TABLE 1: LICENSING SCENARIO CALCULATOR	9
TABLE 2: LICENSING SCENARIO CALCULATOR - EXAMPLE 1	9
TABLE 3: LICENSING SCENARIO CALCULATOR - EXAMPLE 2	10

### **FOR FURTHER INFORMATION AND DISCUSSION**

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### SECTION 1

#### OVERVIEW

Analysts estimate that software purchases account for 20% of corporate expenditures. Yet the vast majority of companies today still seem to be in the dark when it comes to managing these vital assets.

Proper software asset management (SAM) requires setting policies for corporate standards, software evaluation, purchasing, usage and compliance monitoring. This white paper explains how to do that.

### SECTION 2

#### UNDERSTANDING SOFTWARE AS AN ASSET

Software is widely defined as an IT asset, the same as any hardware device. This valuable asset provides strong financial and productivity benefits, but it has ongoing expenses; such as license renewals, true-ups, support and version upgrades. Therefore, like any asset—physical, financial or digital—it has to be monitored and maintained. How this is done varies depending on the size and diversity of your organization.

The challenge is that software is not a physical asset, like a building or machinery. It's less tangible—less visible—and therefore more difficult to track and manage properly. As such, it requires an automated, electronic means of tracking and updating. There are numerous tools on the market for performing software and hardware inventories. If your reseller doesn't offer one, review the Software & Information Industry Association ([www.siiia.net](http://www.siiia.net)) or Business Software Alliance ([www.bsa.org](http://www.bsa.org)) web sites for a listing of audit tools.

Small businesses may or may not have dedicated purchasing or IT departments. Depending on the size, an owner or manager might make all of the purchasing decisions. IT support could be provided by an outsourcer. This could indicate that no one is assigned to manage software assets and licenses. An employee might bring software from home and load it to help get a certain assignment done quickly. Before long, everyone in the department has the application on their PC. The business owner has now lost control of software licensing and could be liable for fines and penalties.

Mid-size to large organizations, especially those with diverse and decentralized locations and business units, have more of a challenge. IT needs to keep up with user demand and configure systems from software masters without checking for proper license requirements. It's not long before potential compliance issues arise. In order to help minimize this risk, organizations tend to buy more licenses than they need, but they can't afford to continue to do this. Another scenario is that organizations may take a risk by under-licensing the software currently installed.

Additionally, many organizations could be paying for licenses and support packs they don't need. They might be paying maintenance for software applications that they either no longer have or have been supplanted by newer versions. Companies that have gone through recent divestitures or acquisitions are especially susceptible to this.

### SECTION 3

#### **SARBANES-OXLEY & SOFTWARE MANAGEMENT**

Software publishers are increasing audit activity. The auditors are looking at where the software is installed and comparing this information against purchasing records, usage, and upgrade rights associated with individual applications or licensing agreements. Not long ago, a company that failed an audit would pay fines and whatever costs were required to meet software compliance regulations, and possibly be subjected to some negative publicity because of the unexpected impact on its revenue. If it were a publicly traded company, it might have had to amend its earnings report. The Sarbanes-Oxley Act changed that. Now there is the possibility of much more dire consequences. The corporate officers, who sign the financial statements in accordance with the act, can be held legally and possibly financially, responsible for inaccurate earnings reports. This means that if the company is suddenly liable for millions of dollars in “off-balance sheet” expenses, including fines stemming from violation of software compliance regulations, the officers are held accountable to the stockholders and the SEC.

In spite of this, some public companies still don't realize that adhering to the financial reporting requirements in Section 404 of the Sarbanes-Oxley Act is impossible without adequate software compliance controls and procedures. Public accounting firms are required by SEC rules (15 USC § 78j-1(a)) to follow “procedures designed to provide reasonable assurance of detecting illegal acts that would have a direct and material effect on the determination of financial statement amounts.” This includes the aforementioned fines for non-compliance. Auditors are also required to “determine whether it is likely that an illegal act has occurred; and if so, determine and consider the possible effect of the illegal act on the financial statements of the issuer, including any contingent monetary effects, such as fines, penalties, and damages.” Consequently, auditing firms are looking very closely at IT controls as they apply to asset management and software compliance. And it doesn't matter to the auditors, the SEC or the stockholders whether those “illegal acts” are intentional or the result of poor software management.

### SECTION 4

#### **FORGET “BABY STEPS”**

Some organizations like to take “baby steps” when looking at new processes and solutions. Baby steps don't work. Either you're managing your software assets properly and to the fullest extent possible through asset management solutions, or you're not getting the information you need to make the right purchasing and licensing decisions.

Proper software asset management requires setting policies for corporate standards, software evaluation, purchasing, usage and compliance monitoring. Once these are in place, a complete and ongoing inventory of software applications installed, as well as usage metrics, throughout the organization is critical to enforcing these policies. The inventory must then be checked against the licenses owned to ensure compliance and guard against buying licenses that are not needed.

### **ESTABLISH SOFTWARE STANDARDS**

A good start to addressing compliance issues is setting corporate software standards. This usually entails interviewing all department heads, unit managers, etc. to determine their requirements. Software standards can then be based on user type, organization unit, departmental cost center, or geographic location. However, there are always exceptions to standard configurations. For example, someone in the marketing department will need a high-end graphics package. A web master will need a web design application. Licensing these applications is the real issue. Setting policies for these exceptions is critical.

Additionally, organizations need policies regarding software downloads. Locking down systems to prevent such practices is the simplest safeguard. There will be the occasional complaint from someone claiming to need a software utility or wanting to try a new application to perform a specific function. There are several ways around this:

- Require users to submit IT support requests, which are then reviewed by the software manager.
- Allow downloads with the condition that all such activity will be reviewed. If it's limited time trial software, management will review the cost before the trial expires.

### **PERFORM AN IT ASSET INVENTORY**

Once standards are set and notifications are sent to all users, it's time to "clean house." The second step, therefore, is to take a survey of all software and hardware installed throughout your organization and collect the information in a repository. Some vendors and IT managers are under the impression that manual inventories are sufficient. That might work for a day or two, but by the time the entire inventory is logged in a spreadsheet, something will likely have changed. New users will be added, others will leave, new software will be installed, and systems will be moved or replaced. In short, the manual inventory that took your staff the last week – or month – could be out of date during a subsequent audit.

The Software & Information Industry Association (SIIA) recommends using automated discovery to perform software inventories, as well as periodic surveys to determine current and future software needs. Efficient asset management and inventory tools help save time and keep costs down, not only support costs for the IT department, but other business costs as well.

Auto-discovery tools vary in the software data they gather. Some provide basic information, such as application name, publisher and version, while others yield much more detail. A software inventory repository should include at least the following:

- Application name
- Publisher
- Version
- Language
- Executable file date
- Department/business unit & user
- Installed individually or as a suite

This information will help IT administrators identify where an organization's software is installed and who is running out-of-date versions of applications.

### **MATCH SOFTWARE INSTALLED TO LICENSES ACQUIRED**

Once you know which software applications are installed on your organization's computers, you need to find your license documentation and reconcile it with the installed applications. For most software asset managers, this is a difficult and complex process, particularly when there is no license tracking system in place. Even organizations that use auto-discovery tools for software inventory might not have accurate license purchase data. This is where compliance gets complicated. Most organizations buy software from multiple sources, which may or may not offer license tracking and volume license management functions in their eBusiness systems.

Numerous asset management solutions have compliance methods designed to help organizations, but most of them rely on data uploads or manual data entry based on records provided by various resellers. In addition, many solutions require the customer to create and maintain a knowledgebase of software titles, causing more data integrity conflicts.

Ideally, solution providers need to connect software asset management tools with their customer databases to help track license purchases and reconcile them automatically against the installed applications that are detected in the inventory. Some software providers offer components of this functionality, but they are rare. No single report or system can provide a seamless solution or "silver bullet" to resolve all software compliance issues.

Remember that having a license and proving the ownership of a license are two different things. Every license, whether from a box product or download, must have proof-of-license. You should also verify with each software publisher what constitutes proof-of-license purchase. If you purchase from a reseller, verify that the documents and reports they provide, whether hardcopy or electronic reports generated by a system, are sufficient for audits. Resellers are not responsible during an audit and therefore may not always have a complete view of the organization. Therefore, it's important that you find a reseller or asset management vendor that offers a system that generates electronic reports by interfacing with purchase and license tracking databases validated by auditing organizations, such as the SIA.

### **MONITOR THE FREQUENCY OF SOFTWARE USAGE**

An automated inventory solution with a software usage module is essential for determining which applications are not being used.

Usage monitoring enables organizations to identify and measure software usage patterns to prevent over- or under-buying and to identify accessed software applications so they can avoid paying for licenses that are installed but are no longer being used. Other key benefits of usage monitoring include:

- Evaluating software usage patterns and measuring the cost of each application against the business value it provides
- Identification of frequently used unauthorized applications that affect employee productivity
- Detailed application usage patterns to reconcile against software procurement trends to ensure cost optimization

### **ENFORCE STANDARDS & RECOVER LICENSES**

Once you know what you have and where it is, you're well positioned to start enforcing corporate software standards. This might include the acquisition, deployment, and recovery of software licenses. Recovering licenses is another way to realize savings from a software asset management program. This can include redeploying software assets when a PC is disposed of or redeploying assets that are not being used.

Enforcing standards might involve implementing a policy of removing unauthorized and under-utilized software from users' systems. Employee policies should contain the following information:

- Public Software Policies
- Timeframe allowed after request to remove unauthorized software
- Productivity/business requirements defined

Users must be warned early and often about the repercussions of using unauthorized or illegal software. Therefore, organization-wide emphasis on software management must accompany new organizational standards, process changes and asset management solutions.

### **CHECK USAGE AND UPGRADE RIGHTS**

One of the most frequently overlooked aspects of software licensing is usage rights. The End User License Agreement (EULA) governs what you can and cannot do legally with the software and how it is licensed. "Software Usage Rights" is a more generic term that can mean the same as the EULA. The EULA typically contains the warranty – what you can and can't do with the software, and the licensing scheme by which it is licensed (single user, concurrent, perpetual, etc.). It will state whether you can copy or decompile the software. Software publishers can modify usage rights and do not always provide a clear definition of what they are in standard license agreements. Yet software usage rights are an integral part of an audit. Therefore, you must contact your vendor's software license experts and get a clear, documented explanation of the usage rights.

### SECTION 5

#### **DEVELOP AND DOCUMENT A PLAN**

This is critical to the success of ongoing software management. The only constant in the IT industry is change. Without a well-defined technology plan, an organization can easily revert to previous practices and become reactive with software distribution in their environment, forcing them to play catch-up with licenses later on. Every plan should be flexible to allow for staff changes, projects and a changing technology infrastructure. One of the benefits of a software management plan is that it establishes software as a viable, quantifiable asset.

A software management plan should address questions such as:

- How many devices are running each operating system?
- How many software assets are in our environment?
- How are we able to reconcile our purchased software to our installed software?
- How many of the installed licenses are we actually using?
- How often should we upgrade operating systems and office suites?
- How often should we upgrade e-mail clients? Security applications?
- Where are specific applications deployed?
- Does everyone need a full office suite or only certain components?
- Are there any business units that require high-end applications, such as CAD?
- What type of licensing would serve the entire organization's needs most economically?

### SECTION 6

#### **ARE YOU "DEPLOYMENT READY"?**

Deployment readiness is a critical part of a software asset management plan. Setting standards and planning a road map means ensuring that your hardware is ready for new operating systems and applications. Therefore hardware and software standards should be established in conjunction with each other. While most auto-discovery tools do an adequate job of collecting inventory data, many lack the ability to report which systems are obsolete or need to be upgraded before a new application can be deployed. Some can be configured to flag systems that don't meet minimum software or organizational standards. Asset management vendors should give you a clear picture of how their products achieve this.



**SECTION 7**

**CALCULATE YOUR SAVINGS**

As we've discussed, one of the first steps in a software asset management program is to collect the data. Auto-discovery tools can provide inventories more quickly and accurately than any manual process. Then you need to calculate the savings, taking into consideration the time and expense involved in implementing an asset management solution. Typical ROI models reflect the cost savings through reductions in license costs, elimination of manual inventory and reduction of risk.

Calculating a broad estimate of savings is actually very simple. You need a few basic facts about your IT environment and software purchasing characteristics as well as an outline of several assumptions based upon your organization.

**LICENSING SCENARIO CALCULATOR**

**TABLE 1:**

Answer the following questions to estimate your potential savings.

1	Enter the workstation (PC) count used to base your software purchases	
2	Enter your overestimate percentage	%
3	Estimated Actual - Subtract the percentage from line 2 from line 1	
4	Licensing cost per workstation (PC)	\$
5	Annual cost of licensing for all workstations (PCs) per year - Multiply line 1 by line 4	\$
6	What You Should be Paying for all workstations (PCs) per year - Multiply line 3 by line 4	\$
<b>SAVINGS FROM AN EFFECTIVE ASSET MANAGEMENT PROGRAM</b> Subtract line 6 from line 5		\$

**TABLE 2:**

*Example*

Workstations (PC) count used to base software purchases	1600
Overestimate percentage	10%
Estimated Actual	1440
Licensing cost per workstation (PC)	\$675.00
Annual cost of licensing for all workstations (PCs) per year	\$1,080,000.00
What Licensing Should Cost for all workstations (PCs) per year	\$972,000.00
<b>SAVINGS FROM AN EFFECTIVE ASSET MANAGEMENT PROGRAM</b>	<b>\$108,000.00</b>

In the previous example, this organization is paying over \$100,000 every year to be “safe” on their software licensing. But what if, they didn’t overestimate, but actually under estimated the number of workstations (PCs) in their organization.

**TABLE 3:**  
*Example 2*

Workstations (PC) count used to base software purchases	1600
Overestimate percentage	-5%
Estimated Actual	1680
Licensing cost per workstation (PC)	\$675.00
Annual cost of licensing for all workstations (PCs) per year	\$1,080,000.00
What Licensing Should Cost for all workstations (PCs) per year	\$1,134,000.00
<b>SAVINGS FROM AN EFFECTIVE ASSET MANAGEMENT PROGRAM*</b>	<b>\$54,000.00</b>

*\*The \$54,000 savings is actually greater when you consider that this is actually an unknown liability and does not include any fines or penalties imposed by a trade organization after a software audit.*

The two examples above clearly illustrate the return on investment through cost savings by reductions in licensing costs, and reduced liability from the risk of a failed software audits. These savings, more than cover the typical expenditures related to the implementation of a software asset management program including the cost of an automated inventory solution.

### SECTION 8

#### **RECOMMENDATIONS AND NEXT STEPS**

According to Gartner, a leading information technology research and advisory company, establishing a software management plan is a lengthy process -with a complete implementation taking 18-24 months for a typical organization of 4,000 or more PCs. Developing a detailed plan will start with the following steps:

##### **1. GATHER A TEAM:**

No one person can accomplish a software asset management program without assistance. The recommended personnel are typically required to assist in planning, process development and execution of the plan. By having input and information from these areas, the planning will be more comprehensive and more successful.

- Procurement – Software acquisition process and policies
- Accounting – Capture of proof of purchase data
- IT – Infrastructure planning for inventory product
- Executive Sponsor – Organizational commitment

##### **2. DISCOVERY:**

Gathering initial data on current processes and procedures will assist in generating a picture of where the organization stands today. Documenting current policies that are in place for acquisition and invoice tracking will assist in software asset management and compliance.

Start with the following:

- Take a survey of departments, business units and/or users to determine current and future software needs. Reconcile the results with your organization's business goals.
- Calculate the costs of over- and under-buying licenses compared to implementing an asset management solution. This should include risk factors, such as fines and other costs associated with non-compliance of software licensing.
- Establish, communicate and enforce corporate software standards.
- Remove outdated applications and harvest the licenses if possible. Verify that there are no active support contracts for these applications.
- Consult your software vendors regarding usage rights and other license terms.

### **3. FIND AND IMPLEMENT AN ASSET MANAGEMENT TOOL:**

While there are many tools available that will gather the data you need to do software asset management, consider the following:

- Maintenance costs
- Titled knowledgebase or library to compare .exe lists
- Ease of implementation
- Hardware and software recognition
- License compliance reporting

### **4. GATHER DATA:**

Starting with clean purchase data to load into an asset management repository is a major factor in the success of the program. Engage your software vendors to provide all of your purchase history in a format that's compatible with your asset management solution.

### **5. EXECUTE AN ONGOING PLAN REGARDLESS:**

Whether you follow these recommendations or not, the reality is that if you don't have a software management plan in place that at a minimum includes regularly scheduled inventories, license compliance management, and enforcement of policies and standards – you are risking financial losses. This is why it's imperative that you have an ongoing plan that includes studying inventory and compliance reports with your team and your asset management consultant or vendor. Schedule regular meetings with your IT, purchasing and software managers to address discrepancies in your inventory and compliance reports. Software asset management is a long-term commitment that can be managed easily with the right tools, team and processes in place.

## **SECTION 9**

### **ABOUT ESMART**

eSMART by Dell | ASAP Software is the on-demand IT asset management solution that allows organizations to automate software and hardware inventory management, monitor software usage, and manage license compliance so they can better manage their IT costs and mitigate compliance risk.

Installed in over 100 countries and in organizations ranging from small businesses to global enterprises with thousands of locations, eSMART can be an important part of the software asset management process (SAM) and follows ISO/IEC 19770-1 standards.

For more information on eSMART visit [www.dell.com/esmart](http://www.dell.com/esmart).

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