SOFTWARE ASSET MANAGEMENT (SAM) IMPLEMENTATION PROJECT
Policy and Process Guide

Prepared for:
Example Client

Presented by:
Evergreen Systems
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1 Introduction

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.

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. 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 significant risks to ignoring how software is used throughout an organization. An organization must be able to identify where software is used, how it is being used, and whether this usage conforms to the license agreement.

In addition, the Sarbanes-Oxley Act has added additional risks of not having a SAM program. Before the passage of this law, if an organization failed a software audit and had to pay back payments, they would simply issue an amended statement of earnings. This would generate some negative publicity, but in the end that was the only risk. Since this law has been enacted, the consequences are much more dire. 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 stockholders and the SEC.

2 Solution Approach

Policies should drive processes. Policies provide the frame within which processes should operate. Policies provide the boundaries within which processes should operate. To use a football analogy, policies are the sidelines and yardage markers and the processes are how the ball is moved within these boundaries. Policies and processes should be measurable and enforceable. Without the ability to measure the performance of a process there’s no way of knowing whether the process is being used, whether it’s working properly, or if additional optimization is required to continue to meet the needs of the business.

With that approach, Evergreen has – with extensive input from the Example Client key personnel – developed a set of recommended policies for SAM program governance, software compliance, and software license redeployment. These will be the building blocks for organizational transformation within Example Client.

3 Program Adoption

The adoption of the Software Asset Management program across Example Client is critical to its long term success. Not only is it important to gain buy-in and support from the Example Client executives and business unit heads, but this commitment must be propagated throughout the entire enterprise.

Cultural change – specifically in how users think of software and its risks – takes time. This time is often measured in years, not months. For a company as diverse as Example Client, driving this change
throughout all levels of the organization will take time and require continued commitment and support from senior management.

Some steps have been taken to socialize the program, its benefits, and risks of non-compliance. These are correct first steps and should be continued throughout this phase and future phases. Working with the Change Leadership to put out monthly communications informs the organization of the progress that is being made provides ongoing education and reminder of each employee’s responsibility for proper use of the software to which they are entitled.

The list below includes some but not all of the recommended communications to drive change at all levels of the organization and provide updates on the performance of the SAM program.

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Audience</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Hire Orientation</td>
<td>As part of the new hire orientation, employees should be informed of the importance of software compliance and the employee’s responsibilities</td>
<td>All employees</td>
<td>Once</td>
</tr>
<tr>
<td>Employee Handbook</td>
<td>As part of the annual update to the Employee Handbook, employees should sign that they acknowledge and understand their responsibilities regarding the use of software.</td>
<td>All employees</td>
<td>Annual</td>
</tr>
<tr>
<td>Compliance Report</td>
<td>Software compliance report for each business unit and for the enterprise</td>
<td>Leadership Council</td>
<td>Monthly</td>
</tr>
<tr>
<td>Compliance Resolution</td>
<td>Results of analysis and resolution of any product that is out of compliance</td>
<td>Leadership Council</td>
<td>Monthly</td>
</tr>
<tr>
<td>Program Status</td>
<td>Update on progress of the SAM Program</td>
<td>Governance</td>
<td>Quarterly</td>
</tr>
</tbody>
</table>

4 **SAM Definitions**

While not an exhaustive list of definitions, the list below represents common terms that are used in a Software Asset Management program.

- **Service** – A system or group of systems combined with people and process to deliver value to the end customer
- **System** – The integration of applications, hardware, and interfaces that work together to meet a business need and support a business service
- **Application** – A unique usage and / or configuration of a software title or group of software titles that meet a business need
- **Software** – Definitive software title that can be commercially purchased or internally developed (e.g. MS Project Pro 2008 is different than MS Project Standard 2008 or SQL Server 2005 is different than SQL Server 2005 Analysis Services)
- **Software Contract** – The terms and conditions of the usage and support of the purchased software licenses including number of rights, types of rights, length and cost of usage
- **Software License Agreement** – A license to use one or more Software rights to a license as specified by the software contract
- **Client Access License (CAL)** – CALs are used to permit access to a server based program from a client desktop. Although most server-based programs permit the user access without CALs, the need for a CAL is determined by the license. Operations of an application without possession of the required CAL licenses represent non compliance. The lack of sufficient CALs is a common problem uncovered during compliance audit.
- **Software Rights** – The number of instances of a specific software license defined by the software contract
Definitive Software Library (DSL) – Describes authorized and forbidden software including freeware. Supports the scan process of unauthorized software. Supports the ordering of software through Procurement

Enterprise Discovery Agent – An executable that runs on computer systems to detect hardware, software and software usage

Enterprise Discovery SAI Library – Stores signatures for all software entered in the library so that the Agent can easily reconcile against standard models

Software Counters – Stores the licenses owned, the number of rights and the current inventory as reported by the scanner

Software Usage – Rules that are set up for the scanner whether a license is actually being used (e.g. no usage for 90 days)

Entitlement – A specific right granted to a user of a licensed product, usually regarding how it may be used. This is defined within the License agreement.

Software Compliance – The degree to which a consumer adheres to the terms and conditions of the software license.

### 5 Phase 1 Scope

Implementing a complete enterprise-wide Software Asset Management program can be a daunting task. Internal factors such as resources and technology must be overcome, and external factors such as adoption of new processes, cultural transformation, and natural organizational resistance all restrict and hamper the program’s progress.

Building a multi-phase program is the most advantageous method for driving the necessary organizational change. Demonstrating the capabilities of the program in the first phase and establishing the building blocks for compliance measurement will help gain the necessary buy-in to the program and can then be leveraged to drive adoption of additional policies and processes throughout the organization.

Therefore the focus for this phase of the Software Asset Management program will be on compliance at an enterprise and business unit level.

- Establish the initial governance structure, including the policies, business processes, and organizational resources as the foundation for a successful SAM program.
- Calculate and report on compliance of high-risk and high value software products at a business unit and enterprise level.
- Incorporate the redeployment of available software licenses into the procurement process to drive cost avoidance.

#### 5.1 Governance

Program governance is a critical part of a successful SAM program. Having proper oversight to the program will insure that policies are being monitored and enforced, processes are being followed, and the software risks are minimized.

Within this first phase of the program, the building blocks will be established. It is not expected that all components of a successful oversight will be in place; it’s not necessary because of the limited scope of the program. But establishing a solid foundation will allow Example Client to continue building on what is established in this phase.

The SAM governance will utilize the existing groups and committees, such as the Buyer’s Council, Technology Council, and Steering Committee. These groups make up the Leadership Team, and are
responsible for providing the guidance and oversight of the program at a high level, and driving the adoption of the program throughout the various Example Client business units. The Leadership Team also assists in the enforcement of governance policies.

The Core Team is largely made up of the Software Asset Management organization, but also includes named individuals within each business unit who assist with compliance resolution and other activities. Procurement also is a key member of the Core Team due to their involvement in the purchase of new software licenses, software redeployment, and contract management.

The Support Team includes groups that provide support – both data and process – to the SAM program and software lifecycle. These represent touch points of the overall process for managing software licenses.

In addition to establishing the core set of policies that will guide the Software Asset Management program, the Governance team will oversee the lifecycle of software licenses. Figure 2 illustrates some of the specific activities that take place throughout the lifecycle of software licenses. For example, program governance is responsible for establishing policies and overseeing the activities related to establishment of software standards and enforcing software reuse. Not all of these activities apply to this initial phase of the SAM program, but establishment of the governance structure provides a foundation on which to build in future phases. The detailed work activities, such as Compliance Management and Software Redeployment, will be carried out by the Core team, as illustrated in Figure 1.
5.2 **Product Scope**

It can be an overwhelming endeavor to try and address all software products at a time. The initial scope of the SAM program should be limited by two factors:

- Total annual spending
- Compliance risk

While it is true that the software most commonly purchased often presents a high level of risk, there are other factors when determining compliance risk. First, has Example Client been contacted by a software vendor and notified of a pending audit? Second, are there active contract negotiations that may benefit from or lead to an audit? Answering yes to either of these questions would lead to the inclusion of software in the initial scope of the SAM program.

After a review of spending, Example Client and Evergreen have determined the initial scope of software products. These products are listed in Appendix A.
6 Program Governance

Establishment of a reliable foundation of SAM program governance will drive continued success. Some of the published policies rely on other groups that are not core to the SAM program, but the SAM program depends on these groups for success. For example, establishing and enforcing the use of Procurement as the only permissible tool for software purchases centralizes the collection of purchased software that the SAM team needs on which to build.

Other policies are necessary for providing the framework for a SAM program, such as establishing the HP toolset as the authoritative applications for collecting, tracking, and reporting software data.

6.1 Governance Policies

<table>
<thead>
<tr>
<th>NO</th>
<th>POLICY</th>
<th>VALUE STATEMENT</th>
<th>MONITORING &amp; ENFORCEMENT</th>
<th>IMPACTED PROCESSES</th>
<th>PRIORITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>GOV101</td>
<td>All software purchases must be made through a central Procurement application.</td>
<td>Centralization of purchasing activities improves organizational visibility to total purchase volumes. Improves capture of all software licenses acquired</td>
<td>Implement “No PO, No Pay” policy for all vendors.</td>
<td>Procurement Accounts Payable</td>
<td>High</td>
</tr>
<tr>
<td>GOV102</td>
<td>All contractual documents should be entered and stored single, central repository</td>
<td>Reduce risk and improve the ability to manage vendor relationships by storing all contractual documents in a single repository. Allows more reliable and robust contract management processes to be implemented.</td>
<td>Implement “No PO, No Pay” policy for all vendors. This will require that the standard Procurement process is followed, which will give visibility to Procurement of any contract that has been signed by the business unit.</td>
<td>Procurement</td>
<td>High</td>
</tr>
<tr>
<td>GOV103</td>
<td>Software should not be purchased if a license is available for redeployment</td>
<td>Redeployment of software is one of the easiest and quickest ways to avoid software license costs.</td>
<td>Report of new software licenses that were purchased for software where there is a already available licenses.</td>
<td>Software Purchase Request</td>
<td>High</td>
</tr>
<tr>
<td>GOV104</td>
<td>Policies related to software use must be published to the organization</td>
<td>Many employees don’t think about the risks associated with the misuse of software licenses.</td>
<td>Each new hire, as part of their orientation or new hire package, should be required to sign a</td>
<td>New Hire Process Employee Handbook</td>
<td>High</td>
</tr>
</tbody>
</table>
Therefore each employee needs to be reminded of their individual responsibility for software compliance. In addition, a form indicating their agreement to use software they are entitled to in a responsible manner and the risks of not doing this. In addition, a section should be inserted in the Example Client Employee Handbook that is signed each year that addresses software licenses.

| GOV105 | Establish core metrics to measure the activity and success of the SAM Program | A core set of metrics will evaluate the performance of the SAM program and provide a gauge of how the organization is performing related to the policies that have been defined and published. | The Leadership Team should drive the creation of these metrics by defining how they expect to measure the performance of the program. | All | High |
| GOV106 | A dedicated Software Asset Management team will own the software lifecycle and compliance | Centralization of the responsibilities of Software Asset Management establishes control, authority and accountability for software usage and compliance. | Formal creation of the SAM Team within the Finance organization of Corporate IT. | All | High |
| GOV107 | A single Enterprise Discovery Agent will be used to collect installation data and load into the single Asset Management repository. | Single toolset provides consistency of data, ease of support (not having to support multiple redundant tools) | A single, central Asset Management repository will be the authoritative reporting tool; no other compliance reports will be accepted by internal groups. No other toolset will provide be used to track and manage the pool of available software licenses. | Discovery Agent and Asset Management application deployment | High |
| GOV108 | Establish and maintain a matrix of roles and responsibilities for the SAM Program | Establishes ownership and accountability for the data and results. | Periodic reviews of the process performance will serve as a gauge to determine any changes that need to be made to the existing roles and | Steering Committee | Medium |
7 Compliance Management

Measuring software compliance is at the heart of any Software Asset Management program. It’s the culmination of the policies and processes that are implemented to capture purchases of software licenses and collect where software is installed. Compliance reports act as a scorecard for the SAM program. But that is not to mean that compliance starts and ends with reports. It involves its own set of policies and processes to address the scope of compliance measurement, how compliance is calculated, and resolution activities of non-compliance.

This section is intended to address the components to establishing a successful compliance management program. It covers the policies necessary to govern compliance across Example Client – both enterprise and business unit – and how compliance will be reporting and how issues will be resolved.

7.1 Compliance Management Policies

The initial scope of software compliance will be the enterprise level and Example Client business unit. Software licenses will be managed and tracked at an aggregate level instead of individual licenses. So the policies for managing software compliance are focused at this higher level. Reports presenting this information will be published to the business unit management so each organization unit knows their compliance position.

<table>
<thead>
<tr>
<th>No</th>
<th>Policy</th>
<th>Value Statement</th>
<th>Monitoring &amp; Enforcement</th>
<th>Impacted Processes</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>CM101</td>
<td>The organization must remain compliant with levels of purchased licenses</td>
<td>Remaining compliant with license levels reduces the risk of costly vendor audits. Eliminate restatements of earnings due to unbudgeted expenses related to failure of an audit.</td>
<td>Create software counters in a central Asset Management repository and build and publish compliance reports based on these counters. This will act as the “scorecard” for the enterprise and business units.</td>
<td>Compliance Management Software Distribution</td>
<td>High</td>
</tr>
<tr>
<td>No</td>
<td>Policy</td>
<td>Value Statement</td>
<td>Monitoring &amp; Enforcement</td>
<td>Impacted Processes</td>
<td>Priority</td>
</tr>
<tr>
<td>-----</td>
<td>------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>CM102</td>
<td>Compliance should be measured at both the enterprise and business unit level</td>
<td>Enterprise compliance reporting determines performance for the entire organization, which is where the vendor is focused. Business unit reporting will evaluate the performance of the SAM program within each business unit. Using the organizational structure data, purchases will be applied to a cost center and discovered installations will also be assigned to a cost center. All cost centers will roll-up to a business unit, allowing reporting of compliance (comparison of installations and entitlements) at the business unit level. Finally, each of these business units can be grouped together to provide an enterprise view of compliance.</td>
<td>Compliance Management</td>
<td>Compliance Management</td>
<td>High</td>
</tr>
<tr>
<td>CM103</td>
<td>Any non-compliant software should be resolved within a predetermined number of days.</td>
<td>Putting a time boundary on the resolution of non-compliance insures that these issues remain in focus until a successful resolution has been reached. An organization as widespread and diverse as Example Client may find itself out of compliance on a product from time to time, so monitoring compliance and taking immediate action can prevent a vendor-initiated audit. Refreshing the software counters weekly will bring compliance into light soon after they occur. Continued updates to the counter as the resolution is being worked through will show the progress off resolution.</td>
<td>Compliance Management</td>
<td>Compliance Management</td>
<td>High</td>
</tr>
<tr>
<td>CM104</td>
<td>SAM Team will be responsible for measuring and reporting compliance and resolving compliance concerns</td>
<td>Centralizing this function consolidates the accountability for the enterprise. Having a single central group provides consistent analysis and reporting to internal groups. Establish an official SAM team with a definite set of roles and responsibilities related to monitoring of compliance. Include in all software contracts that the Director of Software Asset Management is responsible for all software audit questions.</td>
<td>All Processes</td>
<td>All Processes</td>
<td>High</td>
</tr>
<tr>
<td>CM105</td>
<td>Each business unit must provide assistance to the SAM</td>
<td>The SAM team will only be successful through The Leadership team should communicate the policy throughout</td>
<td>Compliance Management</td>
<td>Compliance Management</td>
<td>High</td>
</tr>
</tbody>
</table>
### No | Policy | Value Statement | Monitoring & Enforcement | Impacted Processes | Priority
---|---|---|---|---|---
1 | Team on all matters of software compliance. This includes but is not limited to the gathering of software purchase history and non-compliance resolution | Cooperation and partnership with the business unit. But this team won’t be successful on their own. They need help from the groups that actually use the software. | Each Example Client business unit and provide the oversight to insure that full cooperation is being provided to the Core Team. |  |  

### 7.2 Compliance Management Processes
Software compliance is a measurement of acquired software entitlements (through the Procurement process and sourced from The Procurement tool) and the installation of software that is reported by DDMi. A positive delta between these two sources of data indicates that Example Client is in compliance and conforming to the terms of the license agreement. A negative delta indicates that there is a potential compliance issue, and the Software Asset Management team owns the process – along with the business unit – for resolution.

#### 7.2.1 Build Asset Manager Software Counter
HP Asset Manager uses the concept of software counters to calculate the difference between software entitlements and software installations. The application provides out-of-the-box templates that are capable of calculating the difference based on a few of the most common license types. It also provides the flexibility to calculate alternative license types, such as IBM’s value units.

A new software counter can be initiated from either an internal request or in response to a vendor audit. The first step in constructing the counter is to identify how the software license agreement dictates the software is used. This determines how the compliance is to be calculated. Next the in-scope installation product(s) are identified. The unique product names are determined by DDMi and may not necessarily match up exactly with the product names identified by the license agreement or purchase order. However in most cases, for the most common software products, it is easy to match product names and versions.

After the unique installation product(s) are identified, the unique license product(s) must be identified that are to be included in the software counter. And finally, a period of non-use is to be determined. This allows the software counter to separately identify installations of the software that have not been used within the defined period so the SAM team will know – within the scope of compliance – how many installations can be recovered and redeployed.

The software counter is dependent on data provided by The Procurement tool (software purchases) and HP DDMi (installations). The reliability and completeness of the software counter results is dependent on these sources of data. If the Procurement process is not enforced and consistently used...
throughout Example Client, then the total entitlements will be lacking. Likewise with the installation data; if DDMi is not thoroughly distributed throughout the Example Client enterprise, installations of software will not be included in the outcome of the software counter, resulting in a misstatement of the compliance.
CM1.0 Building Software Counter in Asset Manager

<table>
<thead>
<tr>
<th>SAM Team</th>
<th>Procurement</th>
<th>Asset Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>CM1.1 New software counter requirement identified</td>
<td>CM1.2 Provide copy of software license</td>
<td>CM1.8 Software Compliance Report</td>
</tr>
<tr>
<td></td>
<td>CM1.3 Determine how software compliance is measured</td>
<td>Procurement</td>
</tr>
<tr>
<td></td>
<td>CM1.4 Identify in-scope unique installation product name(s)</td>
<td>DDMI</td>
</tr>
<tr>
<td></td>
<td>CM1.5 Identify in-scope unique license product name(s)</td>
<td>Asset Manager</td>
</tr>
<tr>
<td></td>
<td>CM1.6 Define period of non-use</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CM1.7 Build software counter in Asset Manager</td>
<td></td>
</tr>
</tbody>
</table>

Figure 3
**TRIGGER:**
Request for compliance status on a new software product or set of software products.

<table>
<thead>
<tr>
<th>Activity #</th>
<th>Inputs</th>
<th>Description</th>
<th>Outputs</th>
<th>Roles and Responsibilities</th>
</tr>
</thead>
</table>
| CM1.1      | Email, Phone, Direct, Vendor Notice | Requirement for new software counter identified. This can be initiated by:  
- Vendor audit  
- Increase in scope of compliance reporting  
- Internal request for specific business unit | Request for software license agreement       | R I                         |
<p>| CM1.2      | Request for license agreement      | Provide a copy of the software license agreement with the specific terms for usage rights and/or compliance calculation. | Software license agreement                   | I R                         |
| CM1.3      | Software license                  | SAM Business Analyst will review contract terms and document how the software has been licensed and how compliance is measured. | License type, calculation rules              | R                           |
| CM1.4      | DDMi SAI, AM Models               | Identify from the Asset Manager Models table the unique software installation product(s) that correspond to the software counter requirements. | Software installation product(s)            | R                           |
| CM1.5      | Procurement, license agreement, AM Models | Identify from the Asset Manager Models table the unique software license product(s) that correspond to the software counter requirements. | Software license product(s)                 | R                           |
| CM1.6      | Software usage                    | Apply the standard timeframe of non-usage (90 days) or change to account for special considerations. | Period of non-use                           | R                           |
| CM1.7      | Results of                         | Using the results of the previous activities, the SAM Business                | Software counter                           | R                           |</p>
<table>
<thead>
<tr>
<th>Activities</th>
<th>Analyst will build the new software counter in Asset Manager.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CM1.4, 1.5, &amp; 1.6</td>
<td>After the construction of the software counter and calculation of the results, manually run the software compliance report to produce and deliver the results of the counter.</td>
</tr>
<tr>
<td>CM1.8</td>
<td>Manually initiate compliance report</td>
</tr>
</tbody>
</table>

### 7.2.2 Calculation of Compliance Report

Once a month the software compliance report will be updated and made available to the Software Asset Management team. This will provide a current state of compliance for all the defined software counters. However, in between these monthly reports there may be requests for compliance on specific products or for a specific business unit. This may be due to an internal software audit or in response to a vendor audit that has been initiated.

The software compliance report is based on the software counters that are created in Section 7.2.1, and therefore are subject to the same risks and limitations around data reliability from Procurement and DDMi.
CM2.0: Create Software Compliance Report

Data Collection

<table>
<thead>
<tr>
<th>Roles and Responsibilities</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>R = Responsible for the work</td>
<td></td>
</tr>
<tr>
<td>A = Accountable for the outcome</td>
<td></td>
</tr>
<tr>
<td>C = Consulted with before the activity is started</td>
<td></td>
</tr>
<tr>
<td>I = Informed after the activity is completed</td>
<td></td>
</tr>
</tbody>
</table>

**TRIGGER:**
Request for compliance status on a new software product or set of software products.

Figure 4
<table>
<thead>
<tr>
<th><strong>ACTIVITY #</strong></th>
<th><strong>INPUTS</strong></th>
<th><strong>DESCRIPTION</strong></th>
<th><strong>OUTPUTS</strong></th>
</tr>
</thead>
</table>
| CM2.1          | Email, Phone, Direct, Vendor Notice | Requirement for new software counter identified. This can be initiated by:  
- Vendor audit  
- Increase in scope of compliance reporting  
- Internal request for specific business unit | Request for software license agreement |
| CM2.2          | Request for license agreement | Provide a copy of the software license agreement with the specific terms for usage rights and/or compliance calculation. | Software license agreement |

### 7.2.3 Non-compliance Resolution

Despite the best efforts of the SAM program and Procurement to control the purchase and installation of software, there will be times when a particular software product has more installations than entitlements. By monitoring the monthly software compliance report that is produced by Asset Manager, the Software Asset Management team will be able to identify a non-compliant situation and work with the business unit to address the issue. It may be that the software is authorized and was purchased outside the normal Procurement channel, i.e. by credit card. In this case, the SAM team will create a new software license asset in Asset Manager (after receiving proof of purchase from the business unit) and the non-compliance situation will be resolved. Other times it may be due to unauthorized installations – such as an installation CD being passed around – and the business unit will need to decide if the user(s) are authorized to have the software installed. If so, then the standard software Procurement process will be used to acquire the necessary entitlements for the product to resolve the compliance issue. If the user(s) is not authorized, then the business unit must take appropriate steps to remove the software from the user(s) computers. In either path, the SAM team will review the next version of the software compliance report to confirm that the non-compliance has been addressed.
TRIGGER:
The process begins with the monthly review of the Software Compliance Report.

<table>
<thead>
<tr>
<th>ACTIVITY #</th>
<th>INPUTS</th>
<th>DESCRIPTION</th>
<th>OUTPUTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CM3.1</td>
<td>Automatic report</td>
<td>Software Compliance report is refreshed to show the current compliance condition for the in-scope software products.</td>
<td>Software compliance report</td>
</tr>
<tr>
<td>CM3.2</td>
<td>Monthly compliance report</td>
<td>SAM team analyzes the monthly Software Asset Management report to determine if there are any products that are out of compliance.</td>
<td>Analysis of compliance</td>
</tr>
</tbody>
</table>
| CM3.3      | Determination of non-compliance | The SAM team determines that:  
- No action is taken for any product that is in compliance  
- Initiation of non-compliance resolution for any product that shows to be out of compliance | Report of compliance status |
| CM3.4      | Report of non-compliance | The SAM Team produces a report of the products by business unit that are out of compliance and sends the report to the applicable business unit. | Notification of non-compliance |
| CM3.5      | Notification of non-compliance | When notified that a product is out of compliance, the Business Unit will determine if there is a proof of license for the product.  
If proof of license is found, proceed to Activity 3.6.  
If no proof of purchase for the installation if found, go to Activity 3.7. | Proof of license purchase or confirmation of unauthorized purchase |
| CM3.6      | Proof of license purchase | If the business unit is able to provide a proof of license (software was purchased outside standard Procurement process), the SAM team will manually add the license to Asset Manager. | Creation of new software license in Asset Manager |

Roles and Responsibilities:
- R = Responsible for the work
- A = Accountable for the outcome
- C = Consulted with before the activity is started
- I = Informed after the activity is completed
| CM3.7 | No proof of license purchase | Business Unit will determine if the out of compliance installations are necessary and a new license should be purchased.  
• If the decision is “Yes”, proceed to Activity 3.8.  
• If the decision is “No”, proceed to Activity 3.9 | License need “Yes” or “No” decision. | I | R/A |
| CM3.8 | Decision to purchase license | The Business Unit will submit a request through The Procurement tool to purchase the necessary software licenses.  
Proceed to Activity CM3.10 | New Purchase Request | R |
| CM3.9 | Unauthorized installation | The Business Unit will notify appropriate support group or user and remove the software installation from the system. | Removal of software | I | R |
| CM3.10 | Purchase Request | Procurement will process the purchase request using the normal procurement processes. | Purchase Order for software license | I | I | R |
| CM3.11 | Automatic report | Software compliance report is refreshed to show current compliance condition for the in-scope software products. | Software compliance report | I | R |
| CM3.12 | Monthly compliance report | SAM Team analyzes new software compliance report to confirm that previous compliance issues have been resolved. | Analysis of compliance | R | I |

### 8 Software Redeployment

Reuse of available software licenses is one of the quickest ways to realize cost savings from the SAM program. Each purchase request should be evaluated to determine if there are licenses within the available pool to redeploy instead of the requested software purchase. The goal is to automate the redeployment process so that each purchase can potentially be replaced by an available license from the license pool.

Because a manual process is required in the short term, there are limits as to the volume of software products that can be included in the software redeployment pool. The redeployment within this first phase will be restricted to the software products which are being measured for compliance.

This section includes the policies which will govern the software license redeployment program and the processes which will be used to support and enforce these policies. Participation and cooperation by various groups within Example Client are required to insure success of the program.

#### 8.1 Software Redeployment Policies

The policies for software redeployment apply to all software that is in-scope within this initial phase and does not include every possible software product that is purchased throughout the Example Client organization.
<table>
<thead>
<tr>
<th>No</th>
<th>Policy</th>
<th>Value Statement</th>
<th>Monitoring &amp; Enforcement</th>
<th>Impacted Processes</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR101</td>
<td>Report of available software must be published and refreshed daily</td>
<td>The corporate software pool is constantly changing with the recovery and redeployment of licenses. Therefore reporting on the corporate pool daily will provide the most current information as to how many licenses are available for reuse.</td>
<td>HP Asset Manager will be the authoritative source for all software licenses and which are in use. Not other source will be accepted.</td>
<td>Software Redeployment</td>
<td>High</td>
</tr>
<tr>
<td>SR102</td>
<td>All requests for new software within scope of available licenses must be evaluated for redeployment opportunities</td>
<td>Evaluating every approved purchase request for redeployment will insure that cost savings are maximized.</td>
<td>Monthly review of software purchases, insure that software has not been purchased for which there are licenses available in the pool. Increase in license counts for in scope products.</td>
<td>Software Redeployment</td>
<td>High</td>
</tr>
<tr>
<td>SR103</td>
<td>Total value of redeployed software should be reported at the first of each month for the previous month.</td>
<td>Published cost savings on software due to redeployment provides continued visibility as to the value of the program.</td>
<td>Developed by the SAM team and the SAM Director should deliver the report to business units and Example Client executives.</td>
<td>Software Redeployment</td>
<td>High</td>
</tr>
<tr>
<td>SR104</td>
<td>Software licenses will only be redeployed within the business unit. No cross-business unit redeployment will be done</td>
<td>By limiting redeployments to individual business units only maintains integrity of the license ownership.</td>
<td>The available license pool will be published at a business unit level. This allows Procurement to make a redeployment determination only for the business unit which has created the purchase request.</td>
<td>License Pool Publication, Software Redeployment</td>
<td>High</td>
</tr>
</tbody>
</table>

8.2 Software Redeployment Processes
The objective of the software redeployment processes is to maximize the cost avoidance of software licenses by reusing available licenses whenever and wherever possible. Throughout a diverse organization such as Example Client it is important to capture available licenses and reuse these within
each business unit. The reuse of licenses will be within business units: so if Healthcare has requested a new software licenses, only the Healthcare license pool will be reviewed to determine if licenses are available. In this first phase, licenses will not be redeployed across business units.

The recommended initial scope for redeployable software is the list from Section 5.2. Attempting to track every possible software license in a corporate license pool presents significant challenges, such as the resource impact and cultural adjustment. The list of excess Microsoft products that were identified during the SAM Assessment in 2009 will be included in this process, as well as other high volume software products.

8.2.1 Software Recovery Process

There are two factors that can initiate the recovery of software: decommission of the hardware (which will “retire” software installations) and removal of unauthorized software from the hardware (identified by the compliance resolution process).

These are updates to software installations, which will directly update the results of the software counter. The only change to the software license count will the acquisition of additional software licenses, as provided by The Procurement tool by way of the software request process.

Updates to the software installation data are dependent on 1) updated discovery data from HP’s DDMI or 2) retirement of hardware within MRO. The reconciliation of hardware inventory between MRO and Asset Manager will impact the ability to capture the retirement of hardware. If MRO doesn’t have a hardware device, then the retirement of this device may not be captured.

NOTE: Analysis of software utilization can also lead to recovery of software but this process is out of scope for the first phase of the SAM program.
SR1.0 Software Recovery

Automated Asset Creation and Updates

---

**SAM Analyst**

1. Create hardware assets
2. Reconcile to MRO hardware

**Asset Manager**

3. SR1.2 Analysis of aged assets (non-MRO hardware)
4. SR1.3 Asset status change to decommissioned
5. SR1.4 Trigger to decommission installed software
6. SR1.5 Automatic calculation of software counters

**MRO**

- Import of hardware assets to AM

**DDMi**

- Discovered hardware and software

---

Figure 6
**TRIGGER:**
The process begins with the decommission of a hardware asset

<table>
<thead>
<tr>
<th>Activity #</th>
<th>Inputs</th>
<th>Description</th>
<th>Outputs</th>
<th>Roles and Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR1.1</td>
<td></td>
<td>Within MRO, hardware is decommissioned using the existing business processes. Proceed to Activity SR1.3.</td>
<td>Status change</td>
<td>R</td>
</tr>
<tr>
<td>SR1.2</td>
<td></td>
<td>For hardware that was found by DDMi and not in MRO, a review of the last scan date is performed to determine if the hardware is still active.</td>
<td>Status change</td>
<td>R</td>
</tr>
</tbody>
</table>
| SR1.3      | Scheduled import Scan date analysis | Hardware asset is updated in Asset Manager with the new Assignment  
• If an MRO asset, the update is automatic using the rules in the scheduled import  
• If not an MRO asset, the Assignment is changed after determination the hardware asset is no longer active | Status change | C C R |
| SR1.4      | Hardware status update | Automatic triggers in Asset Manager will update the Assignment of all hardware components. This will update associated software installation to indicate they are no longer active. | Status update of software installations | R |
| SR1.5      | Scheduled process | Asset Manager will automatically update the software counters as scheduled. Software installations will be reduced by the quantity that were updated to no longer be active | Updated software counters, reduction of installed software | R |
### 8.2.2 Publication of License Pool

To support the redeployment of software licenses, a report of the license pool must be published to the Procurement team. This report must be updated daily to provide as current information as possible. The license pool is a delta between the number of software licenses that are currently owned and the number of installations that are in the environment. A positive delta indicates that a new purchase request can be fulfilled by allocating a license (which will increase the software installations by one (1)).

The quality and accuracy of the calculation of the license pool is dependent on software purchase data from The Procurement tool and installation information discovered by DDMI. If the standard Procurement process is not followed, the purchase of the software license will not be recorded in Asset Manager.

---

**SR2.0 Publication of License Pool**

<table>
<thead>
<tr>
<th>Data Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Asset Manager</strong></td>
</tr>
</tbody>
</table>
| ![Data collection](Diagram)
| **SR2.1 Calculate license and install count** |
| **SR2.2 Publish available license count** |
| **SR2.3 Consumption of available license count** |
| **End** |

---

Figure 7
### TRIGGER:

This process is an automated update of the available license count based on the data received from Procurement and DDMi.

<table>
<thead>
<tr>
<th>Activity #</th>
<th>Inputs</th>
<th>Description</th>
<th>Outputs</th>
<th>Roles and Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR2.1</td>
<td>Scheduled event (daily)</td>
<td>Using the data that is collected from Procurement and DDMi, Asset Manager will automatically calculate the delta between the number of purchased licenses and the count of software installations.</td>
<td>License pool count</td>
<td>R A A</td>
</tr>
<tr>
<td>SR2.2</td>
<td>Updated license count</td>
<td>Publish the licenses that • Available license count is less than 10, the available license count will be reported as 0 • Available license is greater than 10, the available license count will be reported as calculated.</td>
<td>Available license count</td>
<td>R</td>
</tr>
<tr>
<td>SR2.3</td>
<td>Updated license count</td>
<td>The Procurement tool will consume the count of available licenses and make available to the Procurement team to support SR3.0.</td>
<td>Available license count in The Procurement tool</td>
<td>R</td>
</tr>
</tbody>
</table>
8.2.3 Software Redeployment Process

The natural churn of resources throughout an organization like Example Client is going to produce an excess of licenses which can be redeployed in place of new purchases. Too often new licenses are purchased blindly, without visibility to existing licenses which might be on the “shelf”. Redeployment of these licenses is one of the quickest routes to overall reduction of software expenses.

A successful redeployment process is dependent on standardization of Procurement processes, like what is in place throughout Example Client. This maximizes visibility of new license requests and allows these to be “intercepted” and fulfilled by reallocating an available license. If the standard Procurement processes are not followed, there will be a direct reduction in potential cost savings.
SR3.0 Software Redeployment

End user

SR3.1 Submit OneSource request for new software

Manager

SR3.2 Approve?

Yes

SR3.3 In-scope software?

Yes

SR3.4 Software request routed for redeployment review

SR3.5 License available?

Yes

SR3.7 Distribute software

No

SR3.6 Issue Purchase Order

End

No

SR3.9 Notice to End User the request has been denied

Procurement

Desktop Support

SR3.8 Software Installed

DDMI

Procurement

Asset Manager

Asset Manager

Figure 8
**TRIGGER:**
The process begins with the request for a new software license that is within the scope of software redeployment.

<table>
<thead>
<tr>
<th>Activity #</th>
<th>Inputs</th>
<th>Description</th>
<th>Outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR3.1</td>
<td>The End User has identified a need for new software license to support a specific business need or business function.</td>
<td>The Procurement tool self-service request</td>
<td>R</td>
</tr>
<tr>
<td>SR3.2</td>
<td>Email for request approval</td>
<td>Cost center manager receives the purchase request and makes an approval decision. - Request is not approved, proceed to Activity SR3.9 - Request is approved, proceed to Activity SR3.3</td>
<td>Request denied Request approved</td>
</tr>
<tr>
<td>SR3.3</td>
<td>Approved purchase request</td>
<td>Determine if the requested software is within the scope of the software license pool. - Software is in scope, proceed to Activity SR3.4 - Software is out of scope, proceed to Activity SR3.6</td>
<td>In scope software Out of scope software</td>
</tr>
<tr>
<td>SR3.4</td>
<td>In scope software</td>
<td>Evaluate the approved software request to determine if there is software available to be redeployed</td>
<td>Review of license pool</td>
</tr>
<tr>
<td>SR3.5</td>
<td>Determine if licenses are available to redeploy - If license is not available, proceed to Activity 3.6 - If license is available, proceed to Activity 3.7</td>
<td>License is not available License is available</td>
<td>I R I</td>
</tr>
<tr>
<td>SR3.6</td>
<td>Approved purchase request</td>
<td>Using the existing processes for The Procurement tool, issue a purchase order to the vendor to fulfill the purchase of new software licenses</td>
<td>Purchase order</td>
</tr>
<tr>
<td>SR3.7</td>
<td>Approved purchase</td>
<td>Using the existing software distribution process, fulfill the software redeployment by sending media to the end user</td>
<td>Software installation media</td>
</tr>
<tr>
<td>Request</td>
<td>Description</td>
<td>Process</td>
<td>Access</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
<td>---------</td>
<td>--------</td>
</tr>
<tr>
<td>SR3.8</td>
<td>Software media</td>
<td>User installs the software using the media that was provided</td>
<td>Software installed DDMi scan update</td>
</tr>
<tr>
<td>SR3.9</td>
<td>Purchase request denied</td>
<td>Notification is sent to the requestor informing them that the request for new software has not been approved</td>
<td>Notice of non-approval</td>
</tr>
</tbody>
</table>
9 Roles and Responsibilities

The Software Asset Management team is best positioned within the Financial organization of Example Client Corporate IT. Software Asset Management is largely a financially driven program focused on cost savings and risk avoidance so being part of the Finance organization provides the authority necessary to drive behaviors that reduce software costs.

The Software Asset Management team should be comprised of both business resources and technical resources. Evergreen recommends that the application support staff responsible for the day-to-day operational support of HP Asset Manager, Connect.It and DDMi be included in the SAM team. This allows a more rapid and focused response to the needs of the business.

The number of required business analyst is subject to the number of software counters that are being managed and the volume of software that is being managed. As more software is included in the scope of responsibility, the more business analysts will be required.

Starting out, the SAM team should be made of the following positions. An organization chart is provided to show the reporting structure that is being recommended.

<table>
<thead>
<tr>
<th>Example Client Director of Software Asset Management</th>
<th>(1) SAM Program Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsibilities:</td>
<td>Responsibilities:</td>
</tr>
<tr>
<td>• Manage the software analysts and application support team</td>
<td>• Manage the day to day activities of the SAM team.</td>
</tr>
<tr>
<td>• Provide oversight and direction for the SAM program</td>
<td>• Present the monthly software compliance report</td>
</tr>
<tr>
<td>• Set program priorities</td>
<td>• Serve as the “face” of the SAM program to the business</td>
</tr>
<tr>
<td>• Lead marketing and adoption of the program</td>
<td>• Track and monitor the resolution of compliance issues and provide reporting to the Leadership team</td>
</tr>
<tr>
<td>• Chief spokesperson for the program to the enterprise</td>
<td>Required Skill Set:</td>
</tr>
<tr>
<td>• Present key metrics for program performance</td>
<td>• Understanding of Software Asset Management terms and concepts</td>
</tr>
<tr>
<td>• Focal point for all software audit activities</td>
<td>• Understanding of the existing SAM business policies and processes</td>
</tr>
<tr>
<td></td>
<td>• Background in managing a diverse team</td>
</tr>
</tbody>
</table>

Reports to: 
Vice President within Financial organization of Corporate IT

(2) Example Client Business Analyst

(1) Example Client System Analyst - Asset Manager, Connect.It Support
### Responsibilities:
- Focus on compliance reporting, building out counters, tracking down and resolving compliance issues
- Analyze new contracts to determine compliance calculation rules
- Manage software counters in Asset Manager and build new counters as needed
- Manage the pool of available licenses
- Assist in any required audit activities
- Maintain relationship between software licenses and software contracts
- Assist with and provide recommendations for ongoing process optimization

### Required Skill Set:
- Understanding of Software Asset Management terms and concepts
- Understanding of the existing SAM business policies and processes
- Detail oriented
- Ability to identify trends
- Data analysis, particularly working with Microsoft Excel to analyze software data

### Reports to:
SAM Program Manager

### (1) Example Client Systems Analyst - DDMi Support

### Responsibilities:
- Own the day to day support of HP DDMI throughout the Example Client organization
- Develop new scan profiles as needed to meet various business conditions
- Monitor DDMI server and resolve any issues

### Required Skill Set:
- HP DDMI training and background
- Understanding of network configurations

### Reports to:
SAM Program Manager

The structure of the Software Asset Management organization should be organized similar to what is illustrated below. The Director of Software Asset Management should report to a Vice President level within the Finance organization of Corporate IT.
10 Future State

As mentioned in Section 5, the initial phase of the SAM program is to establish policies and processes for producing enterprise and business unit level compliance reports and implementing a process for reallocating software. Along with these is the establishment of a program governance structure and policies. The next stage in the SAM program is to implement complete processes for managing the lifecycle of individual software licenses.

10.1 Future State Technology

In addition to the integrations with The Procurement tool, MRO and DDMi that are developed during the first phase, an integration should be developed with HP Client Automation. The existing process of sending hardcopy software media to end users for install will be replaced by pushing software installation packages out using Client Automation. Figure 11 illustrates the future state of application integrations.

The result of this initial phase is diagramed in Figure 10. Asset Manager is implemented and will reconcile hardware with MRO and store and own all software license and software installation data.
Inventory reconciliation - Associate/merge logical asset data from MRO to physically asset on network (Parent - child relationship)

Note: Tivoli will be replaced by DDMI (Inventory) and will no longer be needed.

Note: BMC – Atrium / HP Universal CMDB integration TBD

Figure 10

The future technology state would also have MRO replaced by Asset Manager. So instead of hardware assets being managed in a separate application from software assets, both types of assets will be tracked and managed in the same application. This will streamline processes and reduce application support costs.

Figure 11
10.2 Software Lifecycle Management

The next evolution of the Software Asset Management program should focus on the management of individual software licenses throughout their lifecycle, from request and procurement, to receipt and distribution, and finally to recovery and redeployment. Figure 11 is an overview of what the future state process should look like and where Example Client should continue to drive to.

Effective management of software assets starts with the establishment of standard software. More information about software standards is provided in Section 10.4. Once software standards are defined and published, the request process enforces the use of these standards. Individual license purchases are captured in Asset Manager and distribution is managed through Client Automation, as depicted in Section 10.1. Once individual licenses are captured, they can be associated directly with individual users or hardware system, and changes to either of these will drive updates to the linked software licenses. Also, management of individual licenses provides a more effective method for determining authorization of installation.
10.3 **Software Usage Optimization**

The evolution of the SAM program should include an active software usage optimization component. Policies for non-use of software or under-utilization of software need to be established to drive additional cost savings. Analysis of deployed software - using DDMi utilization statistics - that is not being used should be performed by the SAM Team, and any installation that meets the threshold established in the policy will be recovered. Currently there are limitations as to how the software can be recovered, but the rollout of Client Automation will facilitate the enforcement of the published policies and software recovery process.

10.4 **Software Standardization**

Establishing software standards is a necessary element of a future stage of the Software Asset Management program. Drives cost savings by providing larger volume discounts from the standard software, reducing support costs by reducing the number of applications which need to be supported, and reducing risk by controlling the purchase of non-standard software.

The responsibilities of the existing Technology Council should be expanded to include the establishment of software standards for the Example Client enterprise or where necessary, unique standards for individual business units. The Technology Council should also be responsible for reviewing and approving requests for non-standard software products. The establishment of a Software Standards Task Force is responsible for research and development of software products, and certifying new software and new version that are released. The roles and activities as it relates to the Procurement process – as a very high level – are illustrated in Figure 12 below.

---

**Figure 13**

*High Level Establishment of Software Standards and Procurement Process*
11 Appendix A – In Scope Products

The software products contained in the embedded spreadsheet have been agreed upon as being in scope for the initial phase of the SAM program.