Software Asset Management (Servicenow)
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Executive Summary

Software Asset Management (SAM) consistently tracks, assesses, and manages software licenses and their usage.

From the previous decade, the focus on managing software, licenses and infrastructure cost associated have been key factors for formulating most companies' long term strategy. Companies today are facing big challenges to cope up with increased cost associated with software purchase, license and complex contract parameters. Business risks and cost overrun associated with software license has become a corporate concern. Many companies are still considering SAM as nice-to-have but not must-have as part of their models. However, to gain better control over companies' complex assets and software and licenses, SAM is increasingly becoming an imperative for organizations.

Introduction

Enterprises today are increasingly dependent on technology and especially with software. The gross spending on these is recurring and exponentially becoming an expensive affair year on year. Having software-as-a-service (SaaS) subscriptions has increased the risk of associating cost with the software use.

Despite this, many companies still have not given sufficient attention to SAM. Consequently, many companies have little bird-view insight into whether they are compliant or not and unaware of the actual spending and recurring cost on the software.

From the last three decades, financial companies, patented and niche product enterprises have focused on strict compliance. From the last decade, software service industry is focusing on the compliance and security. This is largely due to the fact that IT outsourcing increasingly spreading across the continents. Hence there is a bigger concern for the companies on software compliance and potential risk of audit. This brings with it, the risk of supplier audits, large financial fines which eventually damages corporate reputation. Although many times these are handled within the organization, to manage these risks, SAM has to be an integral part of the organization.

1 Software Asset Management (SAM)

Software asset management addresses contractual, legal and financial matters. However configuration managers see things differently and look for technical information. Their role is to make sure business users have the required software and if their availability and the intact performance measures are in place or not. However, software asset managers look for data that supports business-focused decisions.

Below are a few examples of the contrasting viewpoints:

<table>
<thead>
<tr>
<th>DATA POINTS</th>
<th>CONFIGURATION MANAGEMENT VIEWPOINT</th>
<th>SOFTWARE ASSET MANAGEMENT VIEWPOINT</th>
</tr>
</thead>
<tbody>
<tr>
<td>INVENTORY DATA: What products, suites, editions and version were installed?</td>
<td>Which end users need upgrades, patches or updates?</td>
<td>Are we authorized to use the installed applications?</td>
</tr>
<tr>
<td>USAGE DATA: Who is Using the product and how often?</td>
<td>Do the end users need enhanced systems and software patches and updated for better performance?</td>
<td>Should we acquire more licenses to meet demand and maintain compliance?</td>
</tr>
<tr>
<td>POLICY MANAGEMENT DATA: Do the tools enforce contractual usage limitations?</td>
<td>Do the tools enforce compliance with technical policies?</td>
<td>Do the tools enforce compliance with contracts and end-user-access?</td>
</tr>
<tr>
<td>CONTACT DATA: What are the relevant contact terms and conditions?</td>
<td>We need basic contact details to enforce usage limitations</td>
<td>We need more contract details integrated into the tool for easier access and reporting</td>
</tr>
</tbody>
</table>
There are lots of SAM tools available in the market today including free wares and low cost/small scale for small organizations and enterprise wide asset management products.

IBM Tivoli, BMC IT Asset Management, CA IT Asset Management, Oracle PeopleSoft, HP Asset Management and Servicenow Asset Management are some of the growing products which have established themselves as leaders in the Asset Management area.

SAM and especially above mentioned enterprises have the following core functionalities such as **mobility, visibility, simplicity, integration and rapid development**.

Servicenow has established themselves as a leader in SAM by its unique offering. Servicenow integrated its SAM capability as the core functionality in their Servicenow ITSM tool. It allows it to use as plug-and-play by simply installing the plug-ins. It differentiates with other top products by simplified integration. Seamless, easy implementation and connectivity features range from critical servers to mobiles, hand devices, and other popular applications, making Servicenow the preferred choice for the companies.

To make use of the above benefits outlined in SAM, we could leverage the Servicenow Tool. Here we are going to have some more insights on how effectively SAM can be used in Servicenow.

**1.1 Servicenow SAM Architecture**

Servicenow brings together all of the processes and capabilities needed to automate the entire IT asset lifecycle into a single system of record for the whole organization. With Servicenow, asset provisioning, maintenance and decommissioning are automated. Compliance is validated, manual errors are eliminated, delivery time is reduced and management activities are captured with a complete audit trail.
Servicenow Asset Management automates your IT asset lifecycle. It tracks financial, contractual and inventory details of hardware, software, and virtual infrastructure – as well as non-IT assets – throughout their lifecycle. Asset requests are handled using workflows to obtain approvals, validate entitlements, issue charge-backs, and provision services. Once an asset is deployed, Asset Management records all maintenance activities and enables IT to perform regular audits, right up until the asset retirement. Servicenow Asset Management provides an ITAM data repository to track inventory details, with data stored separately from the configuration management database (CMDB) for maximum flexibility. The ITAM repository tracks financial information, while the CMDB tracks configuration item (CI) details and relationships. By having both Servicenow Asset Management and Servicenow Configuration Management on the same platform, the traditional challenges around data integration, normalization, and data reconciliation are eliminated. As new assets get added, the business rule engine takes action and creates configuration item (CI), recording them in the CMDB as and when necessary. Any application on the Servicenow Service Automation Platform, including customer-built custom apps, can also leverage this repository. Servicenow Asset Management also works hand-in-hand with Servicenow IT service management (ITSM) applications to provide better control of inventory and valuable insights that improve the quality of services.

1.2 Pre-Requisites
SAMplugin to be enabled in Servicenow.

1.2.1 Populate relevant data under SAM Module
Here are few methods that can be used to populate the SAM database.
• Run software discovery on the network to find the software used.
• Microsoft SCCM tool is also capable of discovering the used software over the network and then Servicenow is to be integrated with Microsoft SCCM to populate the relevant data in software installations table.
  - There can be some other tools or methods which can be used to discover the data over network and populate the data into Servicenow.
In Servicenow navigate as given below to list all the software discovered and stored.
Software Asset Management > Discovery > Software Installations

1.2.2 Software Licenses
The Software Asset Management application allows asset manager to track and gather the number of specific licenses available to the organization. Software licenses are stored under an appropriate model, which can be organized in a meaningful way. Different license calculation types determine how software is counted.

1.2.3 Supported License Models
• Individual: Given to individuals.
• Bulk allocated: Allocated to users via entitlements.
• Bulk not allocated: Model given to users and contains details such as who has a license or where the license is located. This model is not tracked.
1.2.4 Available States

Following states can be available to track the software licenses.

- Missing
- On order
- Consumed
- In stock
- In maintenance
- In transit
- Retired

These states play a major role when an asset manager is pulling a report from the SAM for any inventory or audit purposes.

2 Software License Entitlements

Software entitlements enable asset managers with the asset role, which can assign or allocate a particular person or a process with a specific purchased software license.

Entitlements can be created in the following forms:

- Asset Management > Software > Asset License Entitlements
- Asset Management > Software > User License Entitlements

Typical entitlement will have the following information captured:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display name</td>
<td>Name used in record lists. It’s a Read Only Field</td>
</tr>
<tr>
<td>Assigned to</td>
<td>User of the entitlement token.</td>
</tr>
<tr>
<td>Display name</td>
<td>Name used in record lists. It’s a Read Only Field</td>
</tr>
<tr>
<td>Licensed by</td>
<td>License which granting this token.</td>
</tr>
<tr>
<td>Cached</td>
<td>Internal flag set and updated by the software counters. It’s a Read Only Field</td>
</tr>
</tbody>
</table>

2.1 Software Models

Software asset management uses software models to manage licenses, specifically in software counters and license restrictions, principally to track upgrade and downgrade licenses.

Software Models can be configured in Software Asset Management > Software Models
2.2 License Types

- By CPU
  - By CPU cores
  - By number of CPUs
- By user
  - By number of users
  - Per named user
- By utilization
  - Usage (CPU)
  - Usage (User)
- By workstation
  - Per workstation

2.3 Software Discovery Models

Software discovery models can be used to help normalize the software’s that belongs to the specific organization by analyzing and classifying models to reduce duplication. Software discovery models are stored in the Software Discovery Model [cmdb_sam_sw_discovery_model] table. There is a unique difference between software models and software discovery models:

- A software model is a specific version or configuration of software.
- A software discovery model is a model created when Discovery runs and identifies software.

2.4 License compliance checker

The Software license compliance checker provides the quicker report to verify the software licenses used in your organization are complaint, based on the number of licenses purchased against the number of installations or utilizations.

Software license compliance can be verified by Navigating to below:
Software Asset Management > System > Check License Compliance

The Software Counters list is color coded:
- Green - in compliance
- Orange - within 5% of being out of compliance
- Red - not compliant

2.5 Software Counters

Software counters reconcile software rights with software installations to verify compliance. Counters are really useful when certain software are to be tracked; some software may need not to be tracked closely. Grouping (such as company, location, department, cost center, entitlement workstation and entitlement user) can be used with software counters as per the need.

2.5.1 Software counters return results by type:

- **Entitled in use**: Number of people who have been allocated a license and are using it
- **Entitled not in use**: Number of people who have been allocated a license but are not using it
- **Not entitled**: Number of people using an unauthorized copy of the software
- **Not allocated**: Number of licenses not assigned
3 Business Benefits of using SAM

Some of the key benefits using SAM is described below,

- **Cost Reduction**
  - Avoid purchasing licenses that are not required for an organization
  - Go for bulk software purchase with discounts once the organization knows the software needs

- **Security**
  - All the software installed in an organization network can be easily tracked and evaluated

- **Compliance**
  - One of the major benefits of using SAM is protecting an organization from the unauthorized or unintentional usage of illegal software licenses and ensure the software license compliance

- **Reduced IT Support**
  - SAM helps preventing the unauthorized software usage in an organization and in turn helps to reduce the head-count of IT support staffs by focusing on the needed software only.

Conclusion

A well-established SAM setup can help an organization reduce software costs, improve compliance and simplify processes for the software requests from employees. SAM can also help control inventory through accurate data captured in databases, which in turn helps to identify organizational software needs and find out the unused software that can be deleted. Also, with the available data we can consolidate the number of software vendors in use and take necessary action to reduce if any needed. The key to employ it is to perform a thorough cost-benefit analysis of making SAM an innate component of its business model, to gauge software expenses in terms of investment, renewal and meeting regulatory compliances. After all, the idea of every business is to justify its ROI.

Have a question? Write to us
About Happiest Minds Technologies

Happiest Minds, the Mindful IT Company, applies agile methodologies to enable digital transformation for enterprises and technology providers by delivering seamless customer experience, business efficiency and actionable insights. We leverage a spectrum of disruptive technologies such as: Big Data Analytics, AI & Cognitive Computing, Internet of Things, Cloud, Security, SDN-NFV, RPA, Blockchain, etc. Positioned as “Born Digital . Born Agile”, our capabilities spans across product engineering, digital business solutions, infrastructure management and security services. We deliver these services across industry sectors such as retail, consumer packaged goods, edutech, e-commerce, banking, insurance, hi-tech, engineering R&D, manufacturing, automotive and travel/transportation/hospitality.

Headquartered in Bangalore, India; Happiest Minds has operations in USA, UK, The Netherlands, Australia and Middle East.

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Ponraj has 11+ years of IT experience has performed various Technical roles in ITSM tools background and holds Servicenow Implementation Specialist Certification.