Software Asset Management

Is your company prepared for a software audit?

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Professional Techniques – T31

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WHAT IS SOFTWARE ASSET MANAGEMENT ("SAM")?

Software Asset Management ("SAM")

Objective	Provide a single, integrated view of installed software in order to allow a one-to-one reconciliation between deployment/usage and purchase/license records.
Definition	SAM is a business practice that involves managing and optimizing the purchase, deployment, maintenance, utilization, and disposal of software assets within an organization. The goals of SAM are to reduce IT costs and limit operational, financial and legal risk related to the ownership and use of software.

Software Asset Management ("SAM")

How does it help?

SAM helps organizations understand what software they have licensed, deployed, in use, and the deltas between those figures. Further, SAM empowers an organization to better understand the hierarchical ranking of software products from a vendor management perspective.

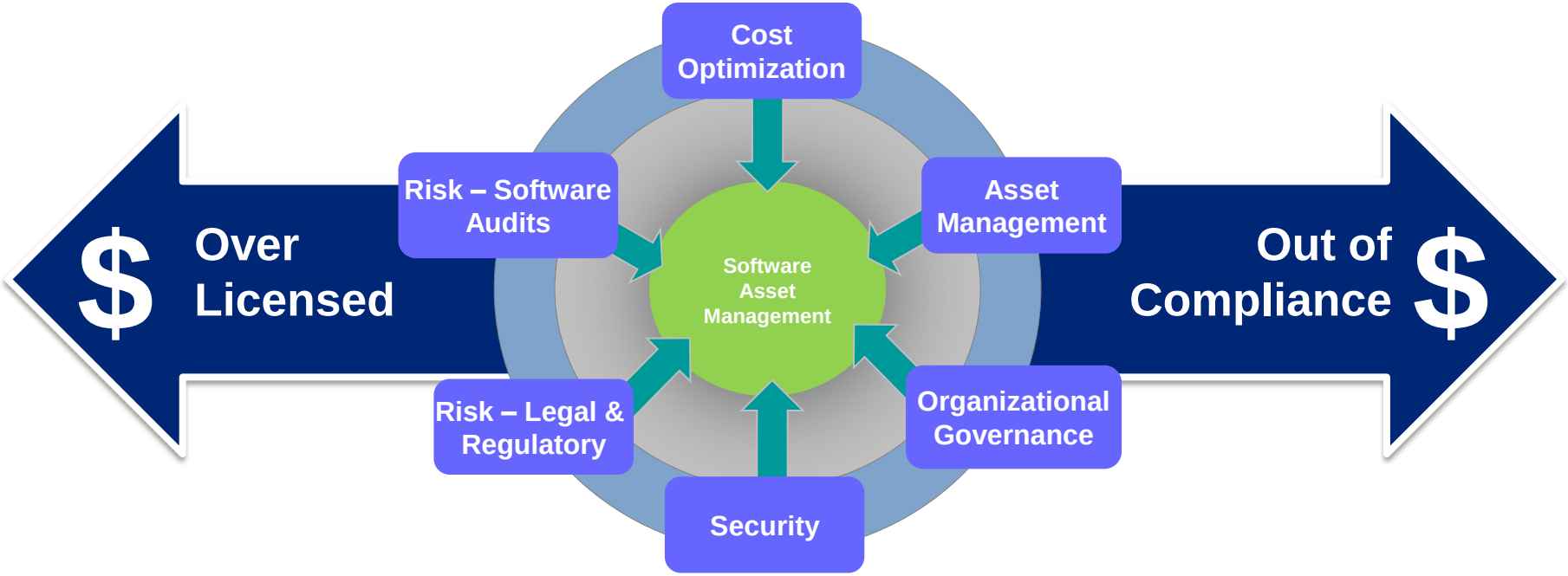
Software Asset Tracking versus SAM

Although Asset Tracking and Asset Management are often used synonymously, there is a subtle difference between the two:

- Asset Tracking: Deals with the physical characteristics of software in support of planning, deployment, operation, support and service; installation/use data.
- Asset Management: Deals with the fiscal (financial and/or contract) details of software as required for financial management, risk management, contract management and vendor management; ownership data.
- Asset tracking is a prerequisite.

Key SAM Objectives

SAM involves managing and optimizing the purchase, licensing, deployment, maintenance, utilization, and disposal of software assets within an organization.



The goals of SAM are to optimize IT costs and limit operational, financial, and legal risk related to the ownership and use of software.

LEADING TRENDS AND DRIVERS

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Why focus on SAM?

Cost Efficiency

- 88% of customers audited have unrealized cost savings averaging over 20% of their annual subscription & maintenance spend
- A mature SAM program can save 3-5% of your total IT spend.

Software Licensing Complexity

- Licensing rules and metrics are constantly changing
- Emerging technologies (virtualization, cloud) make tracking software more challenging

Software Audits on the Rise

- Gartner 2011 Poll:
  - 35% (2007) to 65% (2011) chance of getting audited.
- Top software vendors auditing:
  - IBM, Adobe, MSFT, Oracle, SAP

Software is a Material Asset

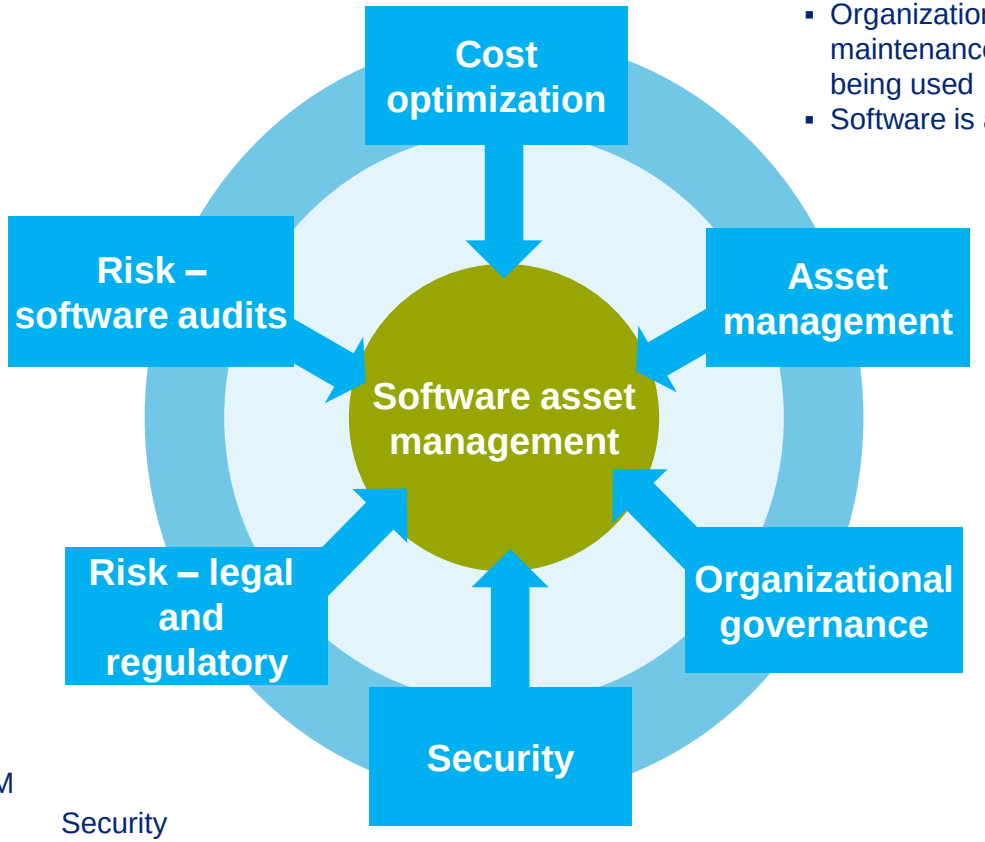
- Software typically represents 8-10% of a total IT budget
- Common for an organization to have 50+ software vendors and hundreds of contracts

Software audits and cost optimization are the primary drivers of SAM

Most companies start to think about asset management in response to an audit. There are other elements of risk faced by companies which allow SAM to be introduced in a proactive manner.

Risk of a Software License Compliance Audit
- License Compliance Audits are on the rise – Gartner continues to predict an increase in vendor audits
- Software vendors use license compliance audits to decrease squeeze on margins
- Software industry alliance "bounties"

Limit legal risk
- Properly implementing SAM limits legal and financial exposure should problems with software licenses arise
- Select industries have regulatory requirements on SAM



Cost Optimization
- Organizations may be over-licensed and paying maintenance costs for software licenses not being used
- Software is a significant component of IT spend

Control of software assets
- Monitoring and tracking of software in use is difficult
- No "silver bullet" technology solution
- Diverse and complex software licensing models
- Reallocation of software licenses when hardware is moved or decommissioned

Organizational governance
- Getting compliant and staying that way also helps eliminate the potential damage to reputation that could arise from a legal dispute
- Compliance with industry standards

Security
- Without the ability to inventory and control software installed and allowed to run on their hardware, organizations make their systems more vulnerable to security threats
- Inventory Open Source software to understand what is in use and what could potentially introduce security risks to the organization

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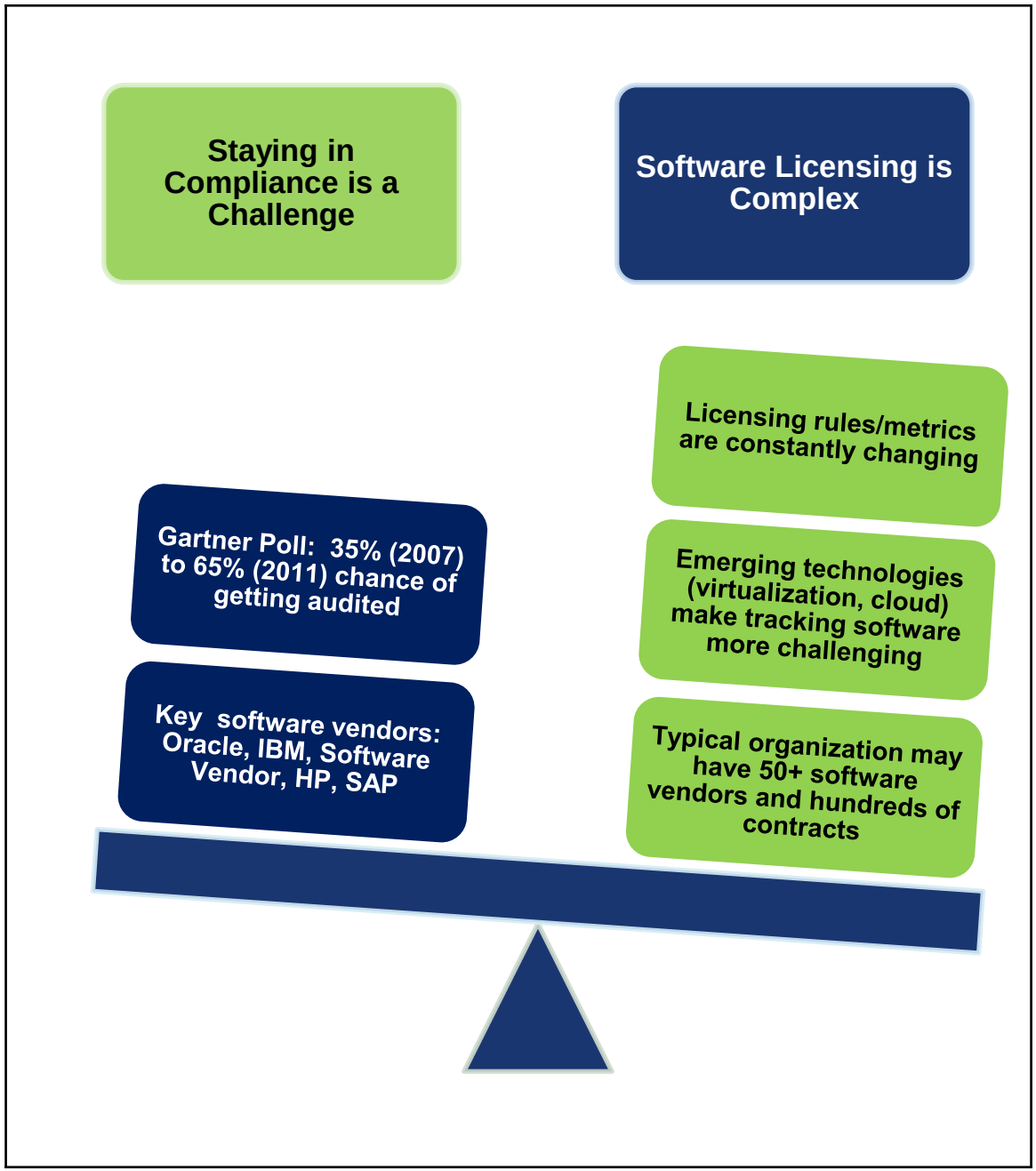
Software license compliance audits on the rise



- Never get into the “Install” versus “Use” argument with a software vendor
- Some software vendors issue new licensing briefs four times a year and SaaS does not mean you don’t have to worry about SAM
- Virtualization technology used to improve efficiency and scalability can cost you millions of dollars
- Most software have no restrictions on over-deployment
- Who and where your users are logging in from could cost you 3-4x more in software cost
- No refund policy but shelf-ware support cost is where software companies make their money

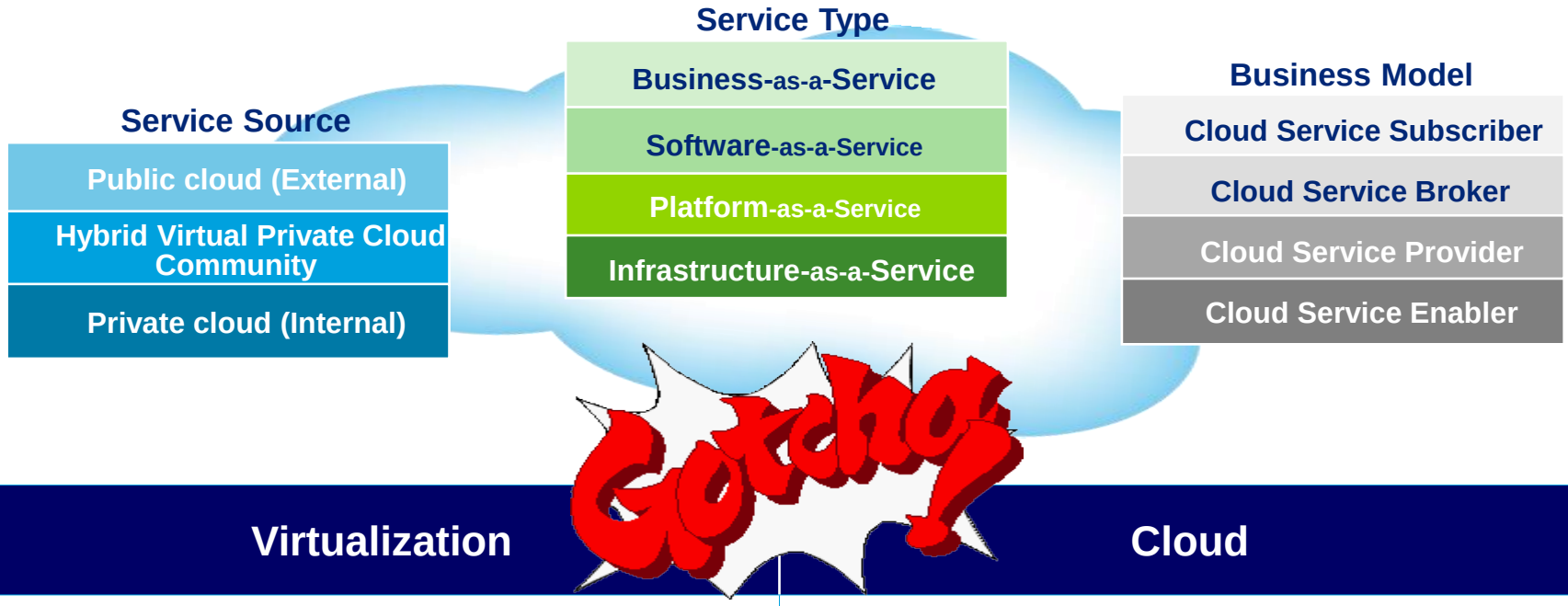
The Software Audits / Assessment Process

1. Kick-Off	2. Planning & Scoping	3. Data Collection	4. Verification & Testing	5. Reporting & Close-Out
■ Participate in kickoff meeting with ABC Company ■ Review methodology and approach	■ Gather details of ABC Company's IT environment ■ Confirm scope of review ■ Identify software and customer contracts ■ Determine and agree on methods to collect installation information	■ Conduct detailed interviews ■ Collect & analyze software data ■ Collect & analyze entitlement data ■ Verify the deployment date for historical use calculations	■ Use sampling along with interviews, if necessary, to validate completeness and accuracy of data provided ■ Review licensing documentation held on-site ■ Compare deployments with reporting data	■ Prepare draft report ■ Discuss preliminary results ■ Incorporate additional data from ABC Company ■ Finalize numbers and prepare draft Effective License Position (ELP) ■ Deliver to ABC Company & Software Vendor

Key Deliverables

■ Key Points of Contact ■ Meeting / Onsite Scheduling	■ Project Plan ■ Interview Schedule ■ Data Request List	■ Completed Software Inventory	■ Draft Effective License Position ■ 3-way Handoff Call

Cloud Computing and Virtualization Licensing



Virtualization	Cloud
• Physical versus Instances • Virtual environments are dynamic • Mobility rules are complex • On premise versus Hosting • Measuring resource usage • Most sales people for software vendors don't truly understand virtualization licensing rules • Different products from the same software vendor will have different rules	• Regular reviews of license contracts and terms • Security risks with access, data and shared infrastructure • Is your organization okay with giving up control • Self-service pricing model can make tracking difficult • Clear service level agreements and terms

Key cost drivers

The total cost of ownership of software assets includes the initial acquisition costs (i.e., license fees, administrative overhead) as well as operational costs (i.e., upgrade, maintenance and support costs). In addition, costs related to termination of end-of-life software must also be taken into account. Through SAM, these costs may be reduced by effectively managing software assets throughout their lifecycle.

Acquisition	**Software License Fees**	Fees based on licensing model followed and usage forecasts
	Administrative Overhead	Overhead for contract negotiation, procurement and delivery of assets
Operational	**Upgrade / Maintenance**	• Identifying software that requires maintenance/upgrades • Costly maintenance of “shelf ware”
	Software Support	• Support fees for software on a per-user or volume basis • Help desk costs
	Administrative Overhead	• IT training costs • Tracking software usage and licensing compliance

BENEFITS OF SAM

Key benefits of SAM

Cost Control

- Lowered legal and compliance-related expenses; including software audits
- Better management of operational costs related to maintaining license compliance
- Return on investment: immediate and long-term financial benefits

Optimization

- Cost optimization: Enables license overpayment recovery
- Facilitates preparations for mergers and acquisitions
- Helps make vendor audits more time and resource-efficient and delivers stronger negotiating position through better management of license-related contracts
- Helps IT leaders make better decisions through the use of better information
- Increased confidence by both internal and external stakeholders
- Promotes more efficient IT systems

Key benefits of SAM

Risk Mitigation

- Reduction of contractual risk – optimize negotiating position with vendors, outsourcers, and potential M&A partners
- Reduction of reputational risk – mitigate potential of adverse media coverage and penalties
- Reduction of financial and budgetary risk – a recent Gartner report indicates that more than 50% of their clients polled have been audited by at least one software vendor in the last 12 months
- Reduction of information security risk – inadequately licensed software introduces the possibility that clients may have deployed counterfeit and potentially unauthorized software

Operational efficiency benefits from SAM

Organizations will benefit from SAM in the physical, financial and contractual realms. The implementation of an effective SAM program has helped organizations reduce the TCO of software assets and minimize security and compliance risks.

Physical

- Maintain software asset inventory at optimum levels
- Re-harvest and reallocate unused software licenses
- Identify software upgrade opportunities
- Locate missing IT software assets
- Forecast future software usage

Financial

- Standardize technology products and purchase licenses in larger numbers
- Reduce duplication of asset management efforts
- Optimize maintenance terms

Contractual

- Standardize means in which software contracts are written from a volume, service level, maintenance, disaster recovery, etc. perspective
- Standardize process of responding to vendor / watchdog requests for audit
- Proactively identify license compliance issues

SAM helps prepare for the future

- Avoid surprises – large audit settlements go to CEO/CFO
- Save on software spend
- Get a true total cost of ownership (TCO) for systems and applications
- Prepare for and enable the cloud – it is driving usage-based licensing and metric changes
- Adjust for virtualization – Virtual Machines (VMs) per server reaching 10:1 and outnumber physical servers 2:1
- Prepare for and make the software license review efficient – almost every software vendor in the market today has some enforcement or audit program

IMPLEMENTING A SAM PROGRAM

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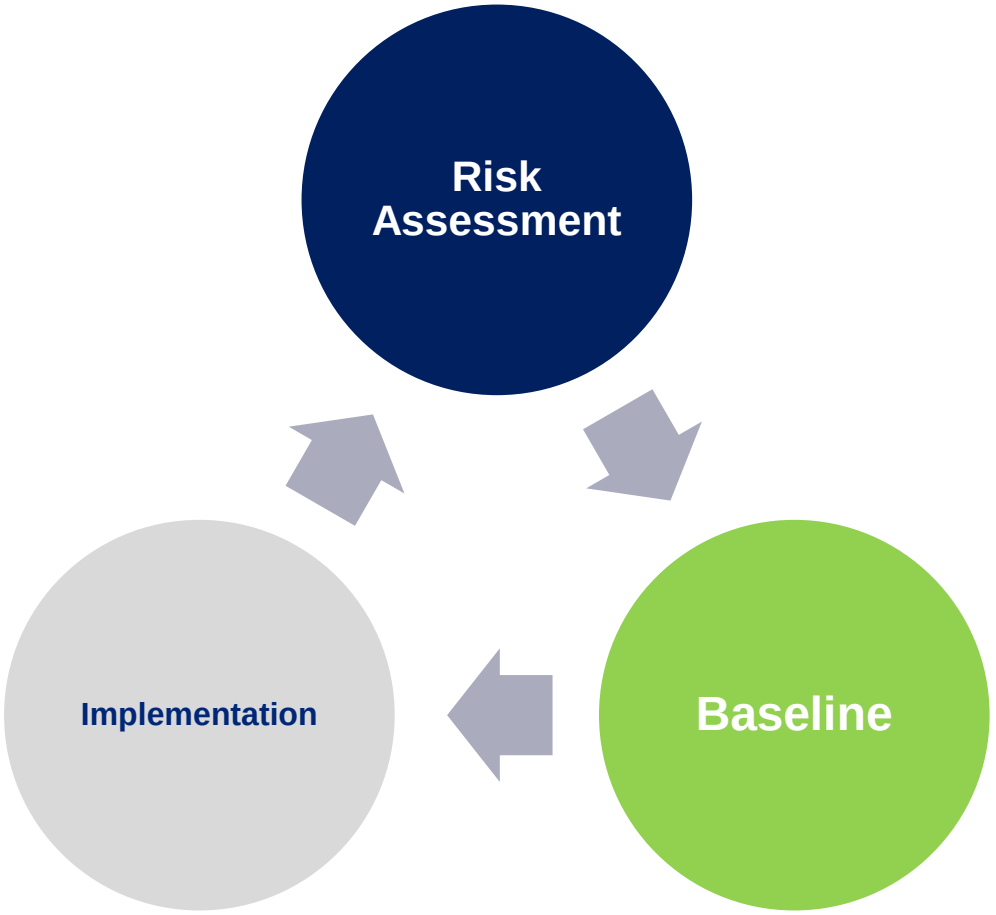
Getting started with a SAM assessment



Risk Assessment

- Determine key risk factors: Spend $, likelihood of a software audit, licensing model complexity
- Start small and learn and build from your successes
- Partner with stakeholders, procurement & IT – educate them!

Baseline

- Understand the contracts and the procurement process
- Know what you own and support up front
- Partner with IT – Tools and available data is key
- Reconcile deployment to entitlement and determine exposure – Don't forget over-licensing scenarios/shelf-ware

Program Implementation

- Benchmark - How does your company stack up against industry standards or other companies
- Drive best practices and process changes
- Implement a formal SAM program

Implementing a SAM program

Identify

- Clearly define SAM goals
- Communicate and gather input from stakeholders
- Identify relevant parts of the organization where SAM has an important role and function

Diagnose

- Current state assessment
- Identify project milestones
- Understand existing tools and databases
- Consult SAM maturity matrix to determine current state

Design

- Develop detailed future state design, including processes, roles and interfaces
- Specify tool and database requirements
- Plan for organizational change

Deliver

- Implement processes and tools
- Train resources responsible for effective SAM
- Emphasize and reinforce management sponsorship
- Consider doing a pilot to identify potential issues that might arise from your plan

Sustain

- Define continuous improvement process
- Monitor compliance using a dashboard and metrics that align with IT strategy and overall corporate performance goals and objectives
- Assess against leading practice periodically

Overcoming common implementation challenges

Implementing a SAM program requires planning and assessment. Some of the challenges and potential remediation in the key areas – Process, Technology and People – are listed below.

		Challenge	Remediation
Process	Data Quality	Inconsistent data or data with missing key elements	Implement automatic tools to flag inconsistent data and manual cleaning processes to correct data inaccuracies
	Product Identifiers	Lack of a company-wide unique identifier which can identify products across vendors	Create new unique identifier which works independently of individual vendors and accounts for all classes of software assets
	Product Catalog	Lack of a centralized list of technology products which both Purchasing and IT can use	Build and maintain common catalog of standard technology products which Purchasing can use for new orders and IT can use for asset tracking
Technology	Software Discovery	Discovery tools cannot automatically detect software running on all existing platforms and under all licensing models	Augment existing discovery tools or replace them with off-the-shelf / custom-built solutions that satisfy requirements
	System Integration	Systems for order placement, purchasing, HR and inventory may not have facilities to allow easy integration with each other	Upgrade software, build custom interfaces using flat files or other methods
People	Org Resistance	Organizational barriers and silos centered around specific departments or functions	Create buy-in and implement programs that foster cross-departmental communication
	Change Management	New processes and systems are not understood and/or utilized	Implement change management program and provide comprehensive training in new processes and systems

A successful SAM program

Successful SAM programs exhibit the following characteristics

People	• Executive Support and buy-in • A central, dedicated SAM function with relevant accountabilities (as process owner or process influencer), including license tracking and management • Functional area accountability, with consequences for non-performance
Procedure	• Standardized, enterprise-wide integrated functions • Standardized asset lifecycle processes • Invoice verification (more than PO validation) • IT & SAM toolkit: Contract checklists, templates (e.g. business case), procedure/policy manual • Usage monitoring and analysis to avoid over/under buying • Product rationalization and replacement strategies
Technology	• A central IT asset repository (logical or physical) for IT asset and related data: contract, license, costs/payments, vendor • Automation of operational tasks (e.g., deployment, discovery) and asset lifecycle workflow

SAM Maturity Model

Organizations are at different stages of maturity in their SAM implementation. In our experience, the majority of organizations are in Level 2 to Level 3 ranges.

1. Chaotic	2. Reactive	3. Proactive	4. Optimizing	5. Transforming
• Minimal process maturity • Limited knowledge of what assets are owned	• Processes are mature to a reactive state where the focus is on counting assets and involves annual physical inventory • Install, move, add, change (IMAC) processes are not consistently followed	• Processes are implemented to manage assets throughout the entire lifecycle, they are well defined, adhered to, reviewed and reengineered where necessary	• Metrics are in place to measure value and service levels have been created to meet business or IT goals	• Audits conducted to review the efficiency and effectiveness of established business processes across all assets of the enterprise
• No centralized procurement • Contract management is inadequate • Ad-hoc purchasing	• Little or no data sharing with purchasing and procurement	• Centralized procurement.	• Automated requisition processes are integrated with purchasing and ERP;	• Centralized procurement with integration to ITAM/SAM tools • Standardized vendors and contracts
• Lack of adequate tools to track and manage assets • No reporting capabilities	• Spreadsheets or databases are created to track assets, and auto-discovery tool to supplement this data • Basic and/ or ad-hoc reporting with little detail run on a project-by-project basis	• Asset repository and auto-discovery tools are integrated with the IT service desk • Inventory data is linked to financial and contractual data to create a centralized view	• Assets stored in a common repository • Asset Management system is fully integrated backend systems • Reports are run frequently, and opportunities for cost savings identified and communicated	• Implementation of three key tools – repository, auto-discovery and software usage – with integration to strategic systems • Sophisticated reporting, identifying current usage levels

Level of Automation

Maturity Level

Select a robust SAM tool for your environment

Maintain Actively	• Tools require active management and maintenance to be useful (updates to software catalog, coverage and accuracy) • Manage the complexities of the specific software publishers (PVU, Users, etc.)
Be Aware of Scope & Goals	• Check for completeness to validate implementation across all eligible platforms running software products • Produce reports necessary for reconciliation of licenses vs. installations
Manage Centrally	• The SAM team should control and support the SAM tool • Assess and prioritize risk based on SKU intelligence and delta

Internal Audit's Role with SAM

How IA can help	• Process Risk Assessment – Benchmarking against leading industry practices • Software License Baselines – Comparing software deployments against license entitlements • Software Security Risk Assessment – Analysis of non-essential software and security patch deployment
Other cost optimization opportunities	• Software procurement optimization • Software Vendor Audit Readiness • Software Contract Negotiation support • Software portfolio rationalization • Strategic vendor sourcing drives enhanced pricing

CASE STUDIES

Case study: Global financial services institution

Background

The client had disparate systems and processes, and lacked a centralized SAM / ITAM. Due to their current state, the client was facing cost and risk issues. The client wanted to implement SAM / ITAM to obtain a holistic view of all assets and their relationships. This solution will need to integrate with ITIL processes over time.

Actions

- Conducted stakeholder interviews across organization
- Defined management objectives for SAM/ITAM
- Analyzed “In-flight” initiatives that had a mix of both in-house managed and out-sourced to technology partners
- Compared gaps with management objectives and industry leading practices
- Aligned initiatives based on management objectives and technology dependency

Results

- Structured Roadmap tied to business / management objectives for the next two years with a breakdown of immediate and future benefits
- Effective organization / program governance structure and process
- Technical architecture / system integration blueprint
- Opportunities / Gaps in the following areas:
  - Financial Management (Lease Management, Charge backs, etc.)
  - Risk & Compliance (SOX application inventory, BCP, etc).
  - Service Quality (Change Management, Self Service, etc.)

Case study: Decentralized healthcare provider

Background

Due to the poor state of the client's software asset management process and tools, the client was spending unnecessary costs on software acquisition and license maintenance. The client had paid over $2 million in fines due to lost assets containing sensitive information.

Actions

- Assisted the client with the launch of an enterprise-wide SAM/ITAM program, leveraging current processes as well as industry standard ITIL and SAM/ITAM preferred practices and methodologies.
- Engaged client's senior management and key stakeholders to help define business goals, asses the current state of Asset Management, and design solutions to satisfy goals
- Developed use cases to address common business practices – these were instrumental in creating a solution to meet compliance and regulatory requirements, that were violated.
- Worked with vendors to implement SAM/ITAM tools in development and production environments. Multiple asset inventories, in various data formats, distributed throughout the enterprise were standardized and incorporated into the new SAM/ITAM solution.
- Managed project timelines and deliverables, vendor resources, and trained client resources during implementation.
- Assisted with the alignment of the SAM/ITAM solution with existing incident, change, asset procurement and deployment systems.

Results

- The state of asset management at the client following the implementation allowed the client to significantly reduce the cost of software license management and IT asset procurement.
- Compliance and regulatory risk was also managed due to heightened visibility into company asset deployment.
- The client was able to phase out legacy tools that were not compatible with current SAM/ITAM, CMDB and ITSM tools.

Case study: Automotive parts company

Background

An automotive parts manufacturing company with stores across 3,400 locations, IT assets from 50 vendors and a SAM program in the initial maturity stage. The company had been audited by three vendors in the past year.

Actions

- Enterprise Risk Services performed a self-audit on selected vendors and deployed the Deloitte discovery tools across 2,500+ servers and 5,000+ workstations and presented a consolidated output comparing vendor specific products against entitlements
- Addressed under-entitled software risk by removing defunct users, decommissioning unnecessary database instances, and uninstalling unused software

Results

- Centralized all contracts and historical entitlements
- Over $1.8M in licensing shortfalls were identified
- Optimized and consolidated software to reduce the $1.8M exposure to $925K, approx. 50% savings on top line risk
- Identified process gaps and inadequate policies in the existing SAM program consistent w/ ISO 19770-1 standards

QUESTIONS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