The evolution of software and asset management (SAM) in the era of artificial intelligence

Embracing the growth of transformative SAM

In today's rapidly evolving technological landscape, software asset management (SAM) has become a critical capability within organizations. SAM encompasses a diverse set of practices across multiple different business units, including information technology, finance and accounting, procurement, and risk management. These practices span the entire lifecycle of assets, supporting both short-term and long-term strategic decision-making. Whether it is risk avoidance, return on investment, or enhancing operational efficiency, SAM plays a pivotal role in driving value across the enterprise.

Historically, SAM was primarily a function within IT departments, focused on registering and managing software assets to control costs and mitigate risks. The primary objective was to avoid over-licensing (financial risk) or under-licensing (legal and compliance risks), ensuring compliance while minimizing unnecessary expenses. This approach helped chief information officers (CIOs) avoid paying unnecessary fees to technology vendors during technology vendor audits aimed at verifying the actual usage of the technology.

Over time, the role of SAM has evolved significantly. With the advent of remote working models, organizations have increasingly viewed SAM as a driver for cost savings. Effective allocation and optimization of software assets have become paramount. As enterprises recognize these drivers, it is essential to highlight that the future of SAM looks promising and transformative, particularly with the emergence of machine learning and Generative AI.

Unlocking the value of SAM through AI
Embracing AI technologies can revolutionize the way organizations manage, optimize, and leverage their software assets. SAM is well-positioned to unlock new levels of efficiency, agility, and value by integrating AI-driven solutions that can aid the SAM lifecycle and bring significant optimization to its legacy mode of operation. Here are some key areas where AI can impact SAM:

Intelligent discovery
AI-powered SAM tools can analyze vast amounts of data from various sources. These sources include network scans, user behavior patterns, software installation logs, financial records, vendor contracts, and market trends. By synthesizing this data, GenAI models can generate tactical and strategic insights, recommendations, and even take action for deactivating licenses if there are serious exposures to the organization. This intelligent software discovery process enables organizations to have a comprehensive understanding of their software assets, leading to more informed decision-making.

Software optimization and cost savings
AI can automate the reconciliation process by comparing actual software usage against license entitlements. SAM solutions can now integrate AI to further enhance this process by predicting future software spend and recommending the most cost-effective licensing models for each software asset. This optimization not only reduces costs but also ensures that organizations are utilizing their software assets efficiently. These insights empower SAM leaders to make informed decisions aligned with the organization's strategic goals. By leveraging such capabilities, organizations can achieve a higher level of precision and accuracy in their SAM practices.

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Improved user experience and support
GenAI and advanced machine learning can enhance user experience and support capabilities within SAM through elevating the capabilities of chatbots and intelligent virtual assistants. These technologies can provide personalized support, help users resolve software licensing-related issues, and guide them through software product use rights (PURs) for better optimization. This improved support can lead to increased efficiency and higher user satisfaction.

SAM as a strategic value driver

Inclusive cybersecurity posture
Emerging AI technologies can provide a competitive edge in the cybersecurity space. By integrating SAM with security tools, organizations can achieve a comprehensive security posture with live data updates on entitlements and licensing details of the organization. This ensures the accuracy of corporate technology parameter for key security capabilities such as security incidents and events management (SIEM), endpoint detection and response (EDR), vulnerability management, identity and access management (IAM), and patch management solutions. SAM teams can prioritize patching efforts and prioritize risk mitigation associated with software vulnerabilities. AI-driven insights can help identify potential threats and vulnerabilities, enabling proactive measures to augment cybersecurity.

Extended enterprise risk management
Integrating AI-driven software asset management with third-party risk management provides increased visibility and control over software third party vendors, which ensures compliance with contractual obligations and enhances security throughout the supply chain. This improved visibility allows organizations to effectively manage third-party risks and maintain robust security measures with their software vendors.

Regulatory considerations
Incorporating environmental, social, and governance (ESG) factors into SAM practices is becoming increasingly important. AI can assist in achieving green IT by tracking assets with the greatest impact on the environment in terms of energy consumption, emissions, and waste generation. For example, it can help measure the environmental benefits achieved from the adoption of environmentally preferable purchasing (EPP). Additionally, it can ensure that vendors comply with social and governance standards, promoting ethical and sustainable practices. By integrating ESG considerations into SAM, organizations can estimate how further environmental reductions can be achieved and aligned with broader sustainability goals through the promotion of circular economy best practices. ▶

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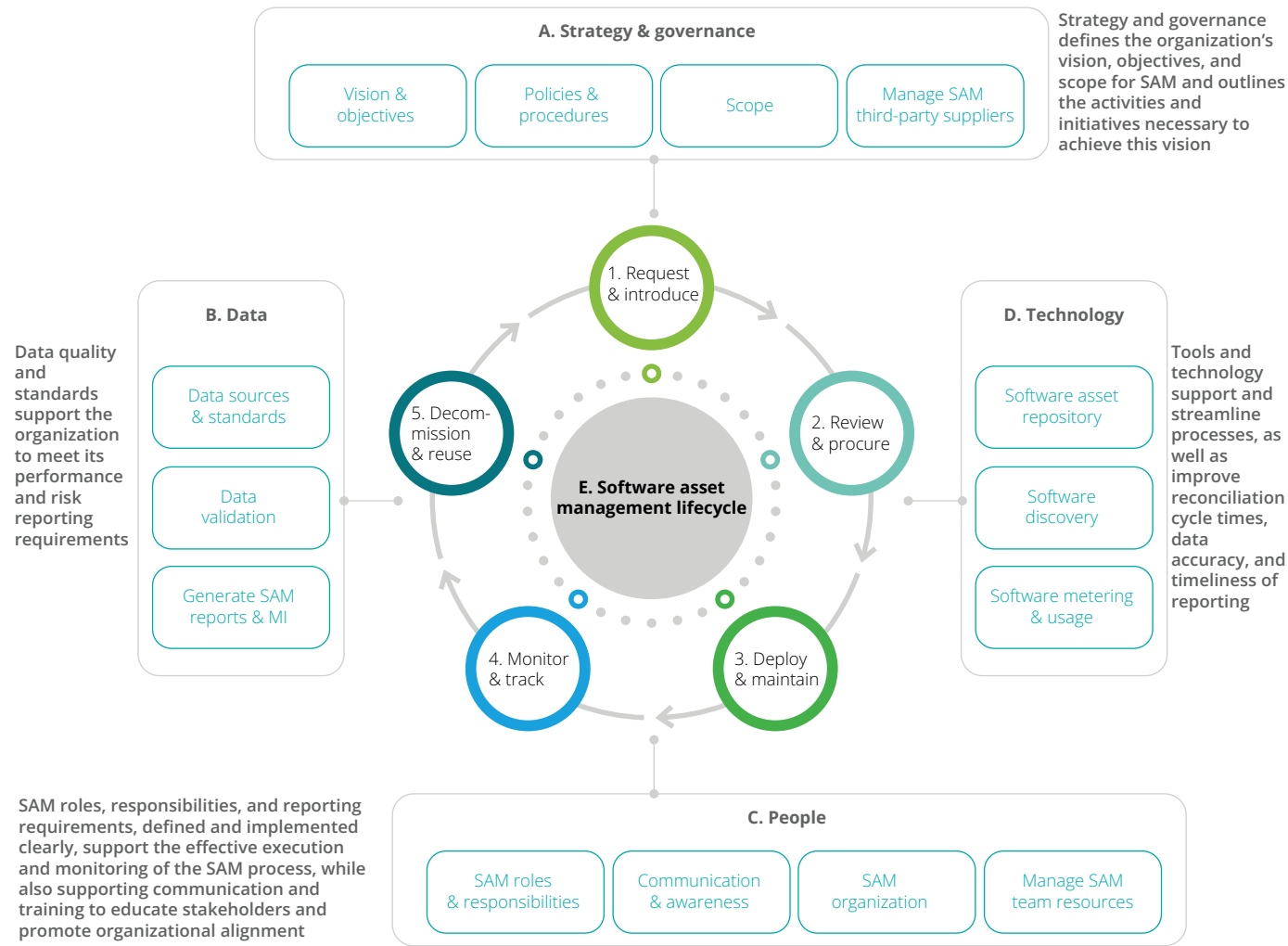
A. Strategy & governance

Vision & objectives

Policies & procedures

Scope

Manage SAM third-party suppliers

Strategy and governance defines the organization's vision, objectives, and scope for SAM and outlines the activities and initiatives necessary to achieve this vision

B. Data

Data sources & standards

Data validation

Generate SAM reports & MI

Data quality and standards support the organization to meet its performance and risk reporting requirements

1. Request & introduce

5. Decom-mission & reuse

2. Review & procure

E. Software asset management lifecycle

4. Monitor & track

3. Deploy & maintain

D. Technology

Software asset repository

Software discovery

Software metering & usage

Tools and technology support and streamline processes, as well as improve reconciliation cycle times, data accuracy, and timeliness of reporting

SAM roles, responsibilities, and reporting requirements, defined and implemented clearly, support the effective execution and monitoring of the SAM process, while also supporting communication and training to educate stakeholders and promote organizational alignment

C. People

SAM roles & responsibilities

Communication & awareness

SAM organization

Manage SAM team resources

Figure 1. Software Asset Management framework

Source: Deloitte resources

Strategic adoption of AI in SAM

While the potential benefits of AI in SAM are considerable, it is crucial to approach the adoption of AI with a strategic mindset. Here are some key considerations for effective framework implementations:

Strategy and governance: Robust governance frameworks ensure the ethical and responsible use of AI technologies. This includes defining clear policies and guidelines for AI adoption, data privacy, and security.

Data and technology: Effective data management practices are essential for harnessing the full potential of AI in SAM. This includes focusing on data quality, integration capacity, and accessibility to enable accurate analysis and insights.

Talent and skills: Investing in developing the right talent and skills allows to reach a higher maturity state. This includes training SAM teams on AI techniques, fostering a culture of continuous learning and innovation.

SAM lifecycle: The automation of software asset lifecycle workflows through the utilization of AI represents an advancement in the field of IT asset management in general and in SAM specifically. By leveraging the capabilities of AI, organizations can reduce manual efforts, thereby minimizing human errors throughout the SAM lifecycle. The automatic generation of licensing compliance reports is an example of how to streamline and optimize the "monitor and track" stage within the SAM lifecycle. (See figure above.)

SAM has the potential to unlock unprecedented levels of efficiency, agility, and value. By leveraging intelligent discovery, optimization, and data-driven decision-making, SAM can enhance the inclusion of cybersecurity measures, bolster third-party risk management, and incorporate ESG considerations into strategic planning.

Yet, the successful adoption of SAM, especially with AI integration, necessitates a strategic mindset powered by a tactical approach. Organizations must begin with the establishment of robust governance frameworks, the implementation of effective data management practices, and the investment in requisite talent and skills. When approached cohesively, SAM can continue to evolve and provide substantial value in an ever-changing technological landscape. ●

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