Improving IT service delivery through an integrated approach to software asset management.

Contents

Introduction

In recent years, virtually every aspect of managing an IT environment has multiplied in complexity as computing resources are increasingly distributed throughout the enterprise. Capacity-based software licensing, for example, has rapidly evolved from a fairly straightforward process of CPU licensing to a complicated, time-consuming undertaking where multicore processor licenses are distributed across diverse platforms. The growing adoption of virtualization and cloud computing technologies only adds to the complexity.

The ability to efficiently manage software deployment is critical to IT service delivery and quality. Software license compliance violations can quickly become service disruptions when software must be removed suddenly. Large, unexpected noncompliance fees and licensing costs can siphon funds earmarked for service improvements.

To help avoid negative service, financial and compliance consequences, many organizations are implementing software asset management (SAM) processes and tools. With more efficient SAM processes in place, IT organizations can more accurately inventory and manage software license entitlements to help:

• Ensure IT service dependability by meeting or beating service level agreements (SLAs).
• Minimize service disruptions by better understanding the impact of changes on the infrastructure.
• Deliver service excellence across the full IT service life cycle.
• Improve effectiveness and efficiency through integrated and automated process workflows.

This white paper describes the challenges of managing software rights in increasingly complex environments and discusses how SAM can make the entire process more efficient. Specifically, it addresses how SAM offerings from IBM can help organizations improve IT service delivery by managing IBM and non-IBM software throughout the asset life cycle.

Highlights

The challenges of managing software assets

As organizations come under intense pressure to deliver continuous, superior service, it is more important than ever that organizations have a way to tightly control software assets. Unlike tangible assets such as hardware, software is considered intellectual property. Organizations are contractually obligated to uphold defined usage rights and license agreements, which makes it all the more imperative to manage software deployment and use effectively.

The consequences of violating these agreements go well beyond the actual dollar amount. Not only can a violation compromise SLAs, but failure to demonstrate proper financial controls can result in internal and external audit failures with possible fines.

Even in the best-run organizations, however, it is all too easy to inadvertently install software on an unlicensed machine or server logical partition (LPAR). Nor are there warning signs that a violation is about to occur. In theory, hardcoding usage limits within the software would solve the problem – but in a world of 24x7 operations where backups must be available and software moved at a moment's notice, forcibly limiting usage is simply not practical.

Instead, the onus of software asset management rests squarely with the IT operations team. And with hundreds of applications running across the IT environment at any given time, keeping an accurate software inventory and determining usage can be difficult at best. A robust SAM practice can help simplify the process by enabling organizations to efficiently track, manage and control software assets throughout the asset life cycle.

> With hundreds of applications running across the IT environment at any given time, keeping an accurate software inventory and determining usage can be difficult at best

Increase efficiencies with SAM

Defined by IT Infrastructure Library® (ITIL®), software asset management is the practice of integrating people, processes and technology to allow software licenses and usage to be systematically tracked, evaluated and managed. With the right SAM tools, organizations can help manage software costs and

license compliance risk by identifying software inventory, measuring software use activity and linking complex license entitlements to installed inventory and license use. At the end of the day, proper SAM helps organizations continue to meet SLAs while ensuring IT resources are available for high-value activities such as service improvements.

Ideally, the solution should take a comprehensive approach that addresses each of the following areas:

- *Inventory.* Collect licensed software product inventory installed on all major platforms, distributed and mainframe.
- *Software usage.* Monitor discovered software inventory and use activity information to gain a complete picture of who is using what software.
- *License entitlements.* Track entitled metric information defined in license agreements (for example, number of users, number of CPUs where software can be deployed).
- *Contract management.* Manage software license cost, renewal dates, terms and conditions, signed agreements and vendor demographic information.
- *Software life cycle (plan, procure, deploy, manage, retire).* Create a continuous loop of software asset management throughout all the phases of the life cycle.

In addition to proactively managing compliance risk and potential service disruptions, a comprehensive approach to software asset management can free up the IT budget by matching inventory with actual deployments to eliminate over- and under-licensing. For example, an organization might discover a software program deployed and used but not contracted for, and therefore a compliance violation. Or a program might be deployed and contracted but not used − in which case it could be removed and the licensing costs diverted to other activities.

A comprehensive approach to software asset management can free up the IT budget by matching inventory with actual deployments to eliminate over- and under-licensing

Automation also plays a crucial role in software asset management. Through automation and the ability to link key information, organizations can help eliminate what would otherwise take countless hours and IT resources to manually inventory, monitor and maintain software usage.

SAM can help:

- Optimize software licenses and reduce over- and under-buying.
- Reduce siphoning of IT budget for unplanned software license compliance payments.
- Free software dollars to fund new acquisitions and projects.
- Reduce outages and failures with proactive asset management practices.
- Leverage inventory and usage data to manage the software and hardware upgrade process more efficiently.
- Support internal and external audits and mitigate regulatory and license compliance risks.
- More accurately forecast future IT needs.

IBM: Addressing each stage of SAM

Through an integrated approach, IBM offers end-to-end, cross-platform SAM solutions that can help IT organizations increase visibility into software inventory, use activity and license entitlements to help control burgeoning software costs and compliance risk.

Unlike many vendors that address only part of the requirements for efficiently managing software assets, IBM services and solutions are designed to address each of the key stages, including inventory, software use activity, license entitlements, contract management and the software life cycle.

For example, IBM License Metric Tool is a no-charge offering designed to help organizations manage IBM software licensing requirements by automating the discovery and inventory of IBM Processor Value Unit (PVU)-based software deployed for full- or virtualization-capacity distributed environments. IBM License Metric Tool can calculate the maximum processor core capacity in PVUs and determine the required number of entitlements. Through the ability to provide signed audit reports of IBM PVU-based software, IBM License Metric Tool can help ensure compliance with license term requirements to lower liability risks and unexpected costs.

In addition, IBM Tivoli® License Compliance Manager can help maintain an up-to-date inventory of distributed IBM and non-IBM software assets — Microsoft® Windows,® Linux,® IBM AIX,® HP-UX, Sun Solaris and IBM i5/OS® (IBM OS/400®) — to facilitate compliance with vendor licenses and avoid related penalties. It also offers deep insight into actual use activity to help eliminate unnecessary or redundant software uses, and better forecast IT spending. Tivoli License Compliance Manager supports:

- Multiple licensing models, including those based on installed instances, concurrent sessions, number of processors or cores.
- Software bundles of two or more products and related components, or shared components and software products that manage other components.
- Applications running in virtualized environments.

With software inventory and use activity information linked to license entitlements, a financial services firm had the critical information needed to proactively manage software licensing, negotiations and compliance, and help control software costs. By linking software with its usage, the firm eliminated $3 million in unnecessary expenses in just 18 months.

IBM Tivoli License Compliance Manager for z/OS® extends the capabilities of Tivoli License Compliance Manager for distributed systems to software running on mainframe systems. This offering can help organizations automatically discover instances of software running on z/OS systems, as well as the ability to view actual use activity trends.

	IBM License Metric Tool 7.1	Tivoli License Compliance Manager 2.3
IBM software	✔	✔
Bundles	✔	✔
ISV software	✖	✔
Software usage (invocations)	✖	✔
License management	✖	✔
License models (price metrics) supported	PVU only	**Install instances** (# of installs) **Install IPLA** (# of installed processors, full and sub-cap) **Install IPLA Value Unit** (# of PVUs, full and sub-cap) **Usage IPLA** (# of used processors, full and sub-cap) **Usage Concurrent Session** (# of distinct sessions) **Usage Concurrent Nodelock** (# of systems)
Catalog management	✖	✔
# nodes (deployed agents)	**Up to 8K**	**45K+**

These IBM offerings help manage licensed software in the increasingly complex distributed environment.

A global oil company implemented SAM tools to help maintain software compliance and control IT expenditures. Through these tools, the organization identified 76 products in the first year alone that were seldom or never used and could therefore be eliminated — to the tune of $1.25M in software licenses and maintenance savings.

ITIL-based IBM Tivoli Asset Management for IT helps provide complete life-cycle IT asset management, including inventory, financial, maintenance, procurement and contract management. Tivoli Asset Management for IT enables the creation and adjustment of SAM process workflows, helps manage contracts throughout their life cycle and integrates with Tivoli License Compliance Manager offerings that help identify and reconcile licensed use with actual use. In addition, Tivoli Asset Management for IT integrates with enterprise asset systems such as IBM Maximo® Enterprise Asset Management offerings and financial third-party systems such as SAP and Oracle financials.
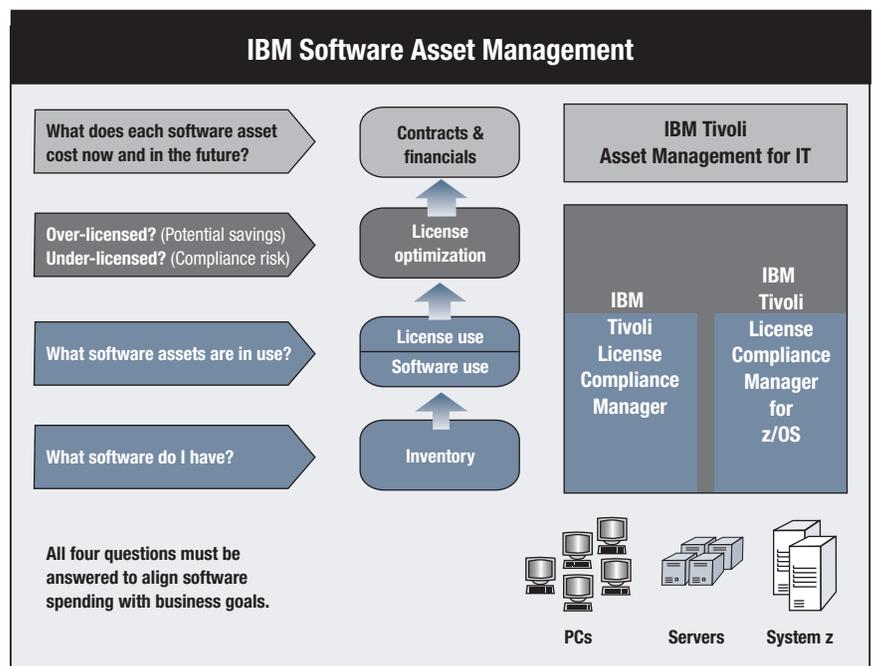
Comprehensive, integrated IBM offerings help provide actionable SAM information and process management.

Summary

As the complexity of software licensing continues to increase, proper management of software assets will play a more crucial role in service delivery. Maintaining properly licensed software can help organizations avoid the pitfalls of missed service targets, unplanned compliance fees and improper financial controls.

IBM offers a comprehensive, end-to-end approach to SAM designed to help organizations better manage IT investments and service commitments. Through efficient execution of each key stage, software asset management can become a service enabler, leading to sustained dependability, accurate budget forecasting and long-term service efficiencies.

For more information

To learn more about an integrated approach to software asset management, contact your IBM representative or IBM Business Partner, or visit **ibm.com**/itsolutions/servicemanagement

About IBM Service Management

IBM Service Management solutions help organizations manage their business infrastructure and deliver quality service that is effectively managed, continuous and secure for users, customers and partners. Organizations of every size can leverage IBM services, software and hardware to plan, execute and manage initiatives for service and asset management, security and business resilience. Flexible, modular offerings span business management, IT development, operations management and system administration, and draw on extensive customer experience, best practices and open standards–based technology. IBM acts as a strategic partner to help customers implement the right solutions to achieve rapid business results and accelerate business growth.