GSDC
Global Skill Development Council

SOFTWARE ASSET MANAGER CHEAT SHEET

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What Is Software Asset Management?

Software Asset Management (SAM) is the business practice of managing and optimizing the procurement, deployment, maintenance, utilization, and disposal of software applications within an organization. Done well, SAM ensures an organization is legally compliant, not overpaying, and getting maximum value from every software investment. Organizations typically overspend on software by **20–30%** due to poor visibility and management — SAM addresses both the waste and the risk simultaneously.

Compliance

Ensure the organization holds valid licenses for every piece of software it uses, and that usage stays within agreed terms — at all times, not just during audits.

Cost Optimization

Eliminate shelfware, reclaim unused licenses, negotiate better renewal terms, and ensure the organization never pays for more than it actually needs.

Risk Management

Protect the organization from legal, financial, and reputational exposure caused by non-compliant software use — especially during vendor-initiated audits.

SAM is not a one-time project — it is a continuous discipline embedded into IT operations, procurement, and finance. The value of SAM compounds over time as processes mature, data quality improves, and the organization develops leverage in vendor negotiations. Every dollar invested in SAM infrastructure typically returns multiples in avoided audit liability, reclaimed license spend, and optimized renewal negotiations.

The Software Asset Lifecycle

Every piece of software an organization uses passes through the same lifecycle. SAM manages every stage — from the moment a business need is identified to the moment a tool is formally retired. Gaps at any stage create compliance risk or wasted spend. Understanding the lifecycle end-to-end is essential for both the CSAM exam and day-to-day SAM practice.

1

Request & Evaluation

A business need is identified. SAM evaluates whether existing licenses already cover the requirement before any new purchase is approved. Total cost of ownership is assessed — including implementation, training, integration, and ongoing maintenance.

2

Procurement & Licensing

Software is purchased with the license type that matches the organization's actual needs. Contract terms are reviewed, negotiated, and fully documented. Proof of purchase and entitlements are recorded in the SAM system.

3

Deployment & Installation

Software is deployed only to authorized users or devices in accordance with license terms. Each deployment is tracked against entitlements to prevent exceeding what has been purchased.

4

Tracking & Inventory

Ongoing discovery ensures all software across every device, server, VM, and cloud instance is known and accounted for. Unauthorized software is identified and addressed. Usage data is collected continuously.

5

Compliance & Optimization

The Effective License Position is calculated — comparing entitlements against actual usage. Unused licenses are reclaimed. Over-licensed software is reduced at renewal. Under-licensed software is remediated proactively.

6

Renewal & Retirement

Software approaching contract renewal is reviewed for business value and usage data. Unused or replaced tools are retired. Licenses no longer needed are not renewed. Software is formally decommissioned and removed from inventory.

License Types — Know All of These

License type knowledge is heavily tested on the CSAM exam. Each type carries distinct entitlement rules, compliance obligations, and failure modes. Misunderstanding a license type is the most common cause of both audit findings and unnecessary spend. Study each type and its specific compliance risk.

License Type	What It Means	Key Compliance Risk
Perpetual	One-time purchase; right to use the software version forever	Using features that require active maintenance without a current maintenance agreement
Subscription	Time-limited access — rights expire when payment stops	Continuing use after the subscription lapses, even temporarily
Named User	Tied to one specific individual by name	Multiple people sharing one set of credentials
Concurrent / Floating	Defined number of simultaneous users, regardless of who they are	Exceeding the concurrent user count at peak usage times
Device / Machine	Tied to a specific physical or virtual machine	Installing on more devices than licensed
Volume / EA	Bulk purchase covering a defined scope of products and users	Misunderstanding which products, versions, and use rights are included
OEM	Bundled with specific hardware at point of sale	Transferring the OEM license to different hardware
SaaS	Cloud-based delivery on a subscription model	Provisioned accounts not matching actual active users — ghost accounts
Open Source	Free to use but with conditions specified in the license	Violating license obligations — especially GPL copyleft requirements
Freeware	Free for personal use; commercial use may not be permitted	Using personal-use freeware in a commercial business context
Shareware	Trial model — use the software before purchasing	Continuing use beyond the trial period without purchasing
Site License	Covers all users at a defined physical location	Deploying beyond the licensed site or geographic boundary

Key SAM Concepts — Know These Cold

These are the core definitions that underpin every SAM activity. Expect the CSAM exam to test both the definitions themselves and how these concepts interact in practice. Understand not just what each term means but why it matters operationally.

Effective License Position (ELP)

The reconciliation of what the organization is entitled to use versus what it is actually using. A **positive ELP** means more licenses than needed. A **negative ELP** means more usage than entitlement — a live compliance risk.

ELP = License Entitlements − Actual Usage

Core Definitions

Software Inventory

Complete, accurate record of all software across every device, server, VM, and cloud instance. The foundation of all SAM activity — nothing works without it.

Software Discovery

Automated detection of all software present in the IT environment — including software that was never formally approved or procured.

License Entitlement

What the organization is legally permitted to use, derived from contracts, purchase orders, and license agreements — not download counts.

License Harvesting

Recovering unused licenses from departing employees, role changes, or inactive users and making them available for reuse — eliminating the need to buy new licenses.

Software Rationalization

Identifying and eliminating redundant, overlapping, or underused applications. Most large organizations run multiple tools with duplicate functionality — rationalization consolidates spend and complexity.

True-Up

Periodic reconciliation — typically annual — between actual software usage and licensed quantities. Common in Enterprise Agreements. Any shortfall discovered during the period is paid at true-up.

Shelfware

Licensed software that is not being used. Represents pure waste — money paid for licenses that generate no business value whatsoever.

Audit Rights

The contractual right granted to vendors to verify software is being used in compliance with license terms. Scope is defined by the contract — vendors cannot exceed it. Being audit-ready at all times is a core SAM responsibility.

SAM Frameworks — The Three to Know

Three frameworks define the governance and operational structure of professional SAM programs. The CSAM exam tests knowledge of each framework's scope, structure, and domain. Understanding how they complement each other is as important as knowing each individually.

ISO 19770

The international standard for software asset management. It defines what good SAM looks like across **four tiers**:

- **Tier 1** — Trustworthy data: accurate inventory and entitlement records
- **Tier 2** — Software identification: standardized software ID tags (SWID)
- **Tier 3** — License entitlement: comprehensive license lifecycle management
- **Tier 4** — Full SAM: complete lifecycle management end-to-end

ISO 19770 is the benchmark against which formal SAM program assessments are conducted worldwide.

ITIL

ITIL's Software Asset Management process sits within the broader IT Asset Management framework. ITIL defines SAM as a component of **Service Asset and Configuration Management** — emphasizing the relationship between software assets and the services they enable.

For ITIL-aligned organizations, SAM is inseparable from the Configuration Management Database (CMDB) and the service catalog. Software assets are managed as components of services, not in isolation.

COBIT

COBIT provides governance and management objectives for enterprise IT. It addresses software asset management within its **Acquire and Implement domain** — focusing on managing IT assets efficiently and ensuring software investments deliver value aligned with business goals.

COBIT frames SAM through the lens of enterprise governance — connecting software asset decisions directly to business value realization and risk management at the board level.

Vendor Audit Process — What Happens and When

How Audits Are Triggered

Vendors typically open with a formal notification letter citing the audit rights clause in the license agreement. Common triggers include: license expiry approaching, detected unusual download or installation patterns, competitor intelligence, or routine contractual audit cycles built into enterprise agreements.

What Auditors Examine

Installation data, usage logs, purchase records, license agreements, deployment configurations, and virtualization environments. **Oracle specifically audits processor licensing in virtualized environments** — one of the most complex and frequently misunderstood compliance areas. SAP audits indirect access — system integrations that touch SAP data without a direct named user license.

The Most Audit-Active Vendors

- Microsoft
- Oracle
- SAP
- IBM
- Adobe

Your Rights During an Audit

1 Review before submitting

Never submit data to an auditor without first reviewing exactly what you are providing. Scope creep starts with unchallenged data requests.

2 Enforce contract scope

Vendors are only entitled to assess what the contract explicitly permits. Do not allow scope to expand beyond what is contractually defined.

3 Dispute findings

Organizations have the right to review audit findings, dispute inaccuracies, and negotiate results before any settlement is reached.

4 Engage legal counsel

For Oracle, SAP, and IBM audits in particular — engage legal and licensing specialists early. The complexity of their license metrics demands expert support.

Open Source License Types — A SAM-Specific Guide

License	Key Obligation	Primary Risk of Violation
GPL	Any software derived from GPL code must also be released as open source under GPL	Incorporating GPL code into a proprietary product without disclosure — strong copyleft
LGPL	More permissive — you can link to LGPL libraries without triggering GPL obligations	Using LGPL incorrectly as a workaround for full GPL copyleft requirements
MIT	Very permissive — use freely in any context; keep the copyright notice intact	Removing or omitting the required copyright notice in distributions
Apache 2.0	Permissive use with patent protection clauses; include required notices	Failing to include required NOTICE file and attribution in distributions
BSD	Very permissive — attribution required in documentation and distributed software	Not including the attribution clause in distributed software or documentation
AGPL	GPL extended to network use — SaaS applications using AGPL code must also open source their application code	Using AGPL software in a SaaS product without disclosing source code — highest risk for cloud products

Exam tip: GPL = strongest copyleft (derived works must be open source). MIT and BSD = most permissive. AGPL = GPL extended to the network — the highest risk license for SaaS and cloud-based products.

The Cost Optimization Levers

Lever 1 — Eliminate Shelfware

Identify licensed software with zero or near-zero usage. Software with no activity in **90 days** is a candidate for reclamation or non-renewal. Typically the fastest win in any SAM engagement — results visible within the first 30 days of analysis.

Lever 2 — Right-Size License Tiers

Users assigned premium tiers who only use basic features can be downgraded. In Microsoft 365, a user on E5 who only uses email and basic Office may only need E1 or E3 — at significantly lower per-seat cost multiplied across thousands of users.

Lever 3 — Harvest and Reuse

Build a formal reclamation process triggered by employee departure, role changes, and extended leave. Every reclaimed license is one that does not need to be purchased — reducing new procurement spend directly.

Lever 4 — Consolidate Overlapping Tools

Most organizations run multiple tools with duplicate functionality — project management, video conferencing, document signing. Consolidation reduces both spend and IT complexity. Often reveals 20–40% tool redundancy.

Lever 5 — Negotiate at Renewal

Arrive at renewal with detailed usage data. Using 60% of licensed volume means negotiating down. Consistently at 100% means negotiating price protections before committing to volume increases. Data is your leverage.

Lever 6 — Cloud License Optimization

Cloud and SaaS subscriptions are provisioned quickly and rarely reviewed. Unused accounts, idle cloud instances with attached software costs, and over-provisioned resource tiers are among the fastest-growing sources of software waste.

Exam Day Quick Recall

LAST-MINUTE REVIEW

These are the facts, formulas, and distinctions most likely to appear on the CSAM exam. Review this list immediately before your exam. If you know these cold, you are ready.

Core Definitions

SAM

Software Asset Management — managing the full lifecycle of software assets from request through retirement.

Three Goals

Compliance, Cost Optimization, and Risk Management — know all three and their definitions.

ELP Formula

ELP = Entitlements – Actual Usage. Positive = fine. Negative = compliance risk.

Shelfware

Licensed but unused software. Pure waste — no business value generated.

True-Up

Periodic reconciliation of actual usage vs. licensed quantities. Common in Enterprise Agreements.

License Harvesting

Recovering unused licenses for reuse — not buying new ones.

Must-Know Distinctions

Named User vs. Concurrent

Named User = one specific person. **Concurrent** = X people simultaneously, any identity.

ISO 19770

The international SAM standard — four tiers from trustworthy data (Tier 1) to full lifecycle SAM (Tier 4).

GPL Open Source

Derived works must also be open source — the biggest open source compliance risk in enterprise development.

Audit Rights

Contractual — vendors can only audit what the contract explicitly permits. Scope is not negotiable upward during an audit.

SAM Maturity Levels

Level 1 (Reactive) through Level 5 (Optimized) — maturity progression reflects process, data quality, and strategic integration.

Most Audit-Active Vendors

Microsoft, Oracle, SAP, IBM, Adobe. Oracle and SAP carry the highest settlement risk due to license complexity.

Final Reminder: SAM is not just a compliance function — it is a strategic discipline that protects the organization, reduces cost, and enables smarter software investment decisions. That framing runs through every question on the CSAM exam.

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CERTIFIED SOFTWARE ASSET MANAGER(CSAM)

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