USU

White Paper

Mastering Cloud FinOps with SaaS Management

Proven strategies to tackle cloud waste and get more value for your money

Content

Introduction

Everyone loves happy hour at a bar, but few are happy to pay to host one.

Cloud costs can just as quickly get out of hand if each department in your company treats it as one, ending with an awful hangover, aka the bill.

According to Gartner, spending on public cloud services is continuously growing, expected to reach 675 billion US dollars in 2024. The unnecessary additional expenditure is up to a third, or a good 225 billion US dollars. Over-utilization of resources, unforeseen cost factors and ineffective cost management all play into this.

Most companies lack transparency regarding the detailed costs of their cloud infrastructure. But that's only one side of the coin. What many customers also might not be aware of are software-related costs in the cloud, like Windows Server, database software, or SaaS applications. Unless you track these costs, you don't have a full picture of your cloud environment.

FinOps and SaaS Management (a SAM practice) can help to optimize costs and to ease the pain of unnecessary cloud spend effectively. This e-book equips CIOs, business owners, FinOps and SAM practitioners with an insight into the following topics:

- → How to profit from synergies of SAM and FinOps?
- → How to manage software licenses in the cloud?
- → How to save with BYOL strategies?
- → How to do rightsizing IaaS, Paas, and SaaS right?

The Cloud: It's Everywhere and Everything

Cloud services are secure internet-based services that deliver remote computing solutions, such as databases, servers, storage, analytics, and other resources.

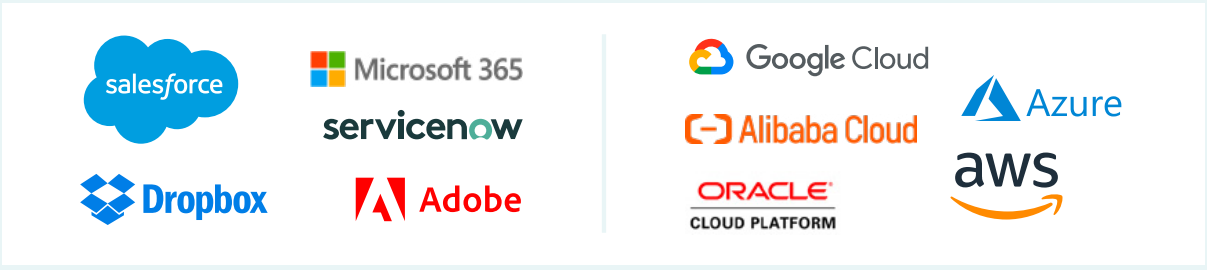
Cloud services comprise services like Infrastructure-as-a-Service (IaaS), Platform-as-a-Service (PaaS), Container-as-a-Service (CaaS) and Software-as-a-Service (SaaS). **According to a Gartner forecast,** in 2024 companies will pay more than 247 billion US dollars for SaaS, remaining the largest segment of the cloud market in end-user spending.

SaaS

- Many vendors, many contracts
- Varying metric complexity
- Lack of visibility
- Inactivity and over-licensing easily lead to waste of money

PaaS, CaaS, IaaS

- Few vendors
- Choice between Bring Your Own License (BYOL) or rent licenses
- Various licensing and compliance rules for using on-premises licenses in the cloud
- Many commercial options: Pay As You Go (PAYG), reserved instances, committed spend

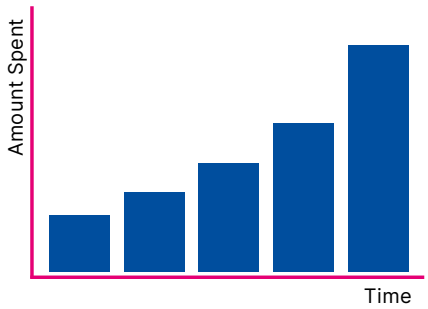


What Does Cloud Waste Mean?

Cloud services that are not used to their full potential or ignored entirely are part of cloud waste.

Sometimes, cloud waste can even come from duplicate purchases. When left unchecked, cloud waste can create significant unnecessary costs for organizations. Gartner predicts that companies will waste 225 billion US dollars for public cloud services in 2024. That's tough.

When an organization has cloud waste, it's like hosting a digital landfill – the resources are sitting there, taking up space, and the costs for these idle or underutilized resources can be high.



Given the fact that there are several functions and personas responsible for cloud costs it can be very difficult to gain full transparency of these costs in terms of a consolidated overview. But don't panic, there is solution – just continue reading.

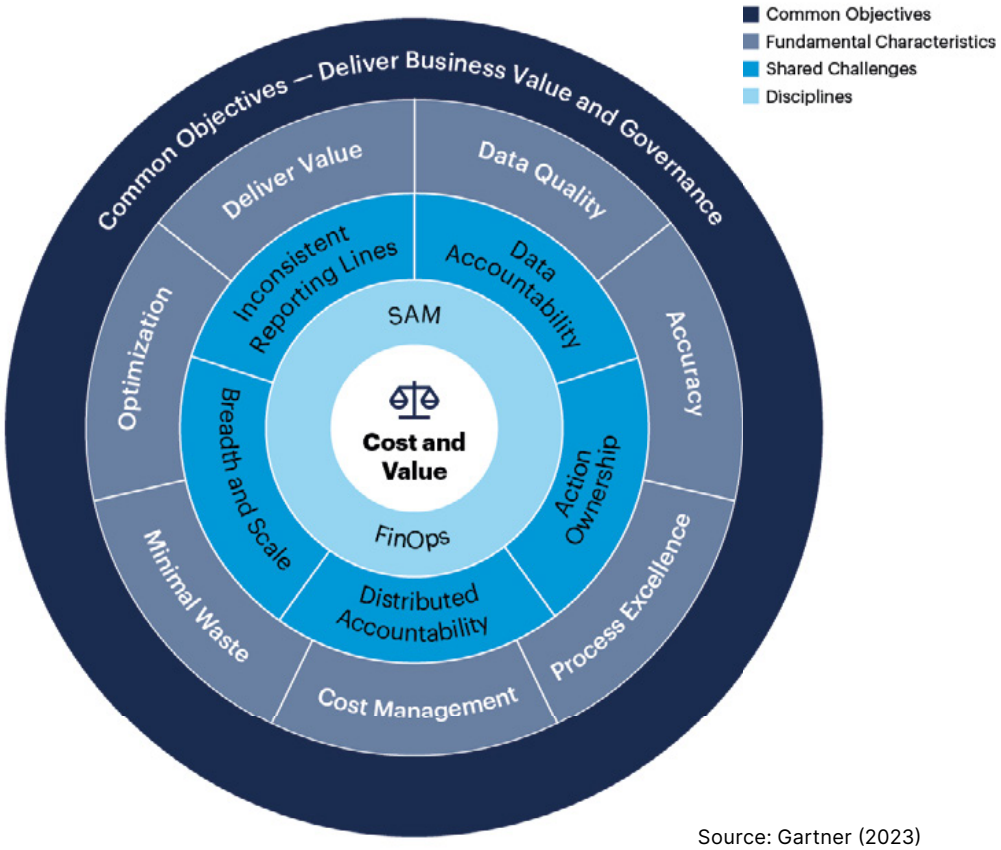
SAM and FinOps: Intersecting Disciplines

Software Asset Management (SAM) and FinOps are soulmates. Although founded from different eras of technology adoption, their disciplines share the same objectives.

Both represent coordinated, continuous undertakings to realize value from evolving investments and expenditures. Their frameworks exploit many of the same cost-efficiency principles and capabilities, incorporating a combination of fundamentals such as:

- Usage management and control
- Resource rightsizing
- Cost optimization
- Forecasting and reporting

FinOps capability complements SAM by enabling greater visibility, with the combined skills and data delivering governance and cost management across the portfolio of software and cloud services. According to Gartner, 50% of organizations will unify SAM and FinOps into a consolidated discipline by 2025, delivering portfolio cost management and governance.



Source: Gartner (2023)

Cloud Licensing and Compliance

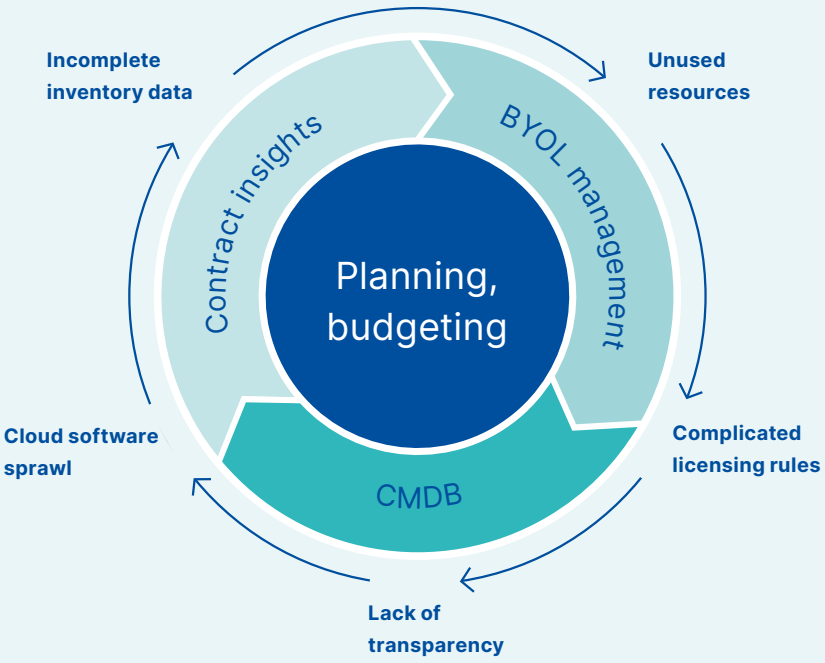
In most organizations, licensed software, running in the cloud (e.g., Platform-as-a-Service), and Software as a Service (SaaS) products are used in addition to IaaS cloud services.

Typically, FinOps and Engineering teams lack expertise in licensing and access to enterprise agreements. This responsibility usually falls on SAM and SaaS management experts in the organization. SAM teams often lack visibility into cloud bills, which can span multiple vendors. In large organizations, numerous logins may exist for different cloud environments.

Both FinOps and SAM teams face various challenges related to cloud spending, compliance, and sustainability. Software vendors often have complex rules for using licenses in the cloud versus customer-owned data centers (e.g., BYOL rights or Azure Hybrid Benefits).

However, SAM teams possess the skills, processes, and data to assist organizations in managing these challenges. They can help FinOps teams understand existing contracts, their terms, and applicable options within the cloud estate.

The SAM business cycle



Cloud Transparency is Key

Achieving transparency through software usage measurement and management is complex yet critical. Without visibility into consumed functionality, identifying optimization and rationalization targets across the portfolio becomes compromised, limiting the potential to control costs and mitigate risks.

Cloud services introduce several transparency challenges

01 | **Lack of unified standards** for APIs, BYOL metrics, and application integration rules/rights.

02 | The **diversity of SaaS providers** complicates a comprehensive view of organization-wide usage.

03 | SaaS vendor reporting tools often rely on API data for consumption, creating **dependency on vendors for trustworthy data.**

04 | Increased **use of containers** within cloud services.

05 | Software used by cloud instances may be included in cloud payments, **complicating license tracking and compliance management.**

Complete automation is unrealistic; reports need interpretation, and actions are discussed iteratively before implementation. However, active data from a SAM platform enables savings through rightsizing, so teams should be empowered with appropriate data sources.

Focus on Cost!

Due to the nature of the cloud, reductions in spending can be realized much more immediately than with traditional on-premises software – often within a day, if not sooner.

There are several strategies for reducing cloud spend within cloud environments including:

- Spot instances
- BYOL rules
- Instance location
- Reserved instances
- Rightsizing IaaS, PaaS, SaaS
- Power down policies

Many organizations divide their compute resources between on-premises and the cloud – and this so-called hybrid cloud environment will be the most common scenario for most businesses in the foreseeable future.

A great starting point where SAM and SaaS Management can quickly and easily add value to cloud efforts is through pro-active, comprehensive management of Bring Your Own License aka BYOL.

Dashboard: Holistic overview of Azure infrastructure and Hybrid Benefit Windows Server, USU Software Asset Management

Bring Your Own License (BYOL)

Using on-premises licenses in the cloud is a common occurrence as organizations migrate on-premises workloads to cloud environments such as Microsoft Azure and Amazon AWS. It enables organizations to further increase ROI from already acquired assets but there are also scenarios where using BYOL brings a (potentially significant) reduction in cloud spend.

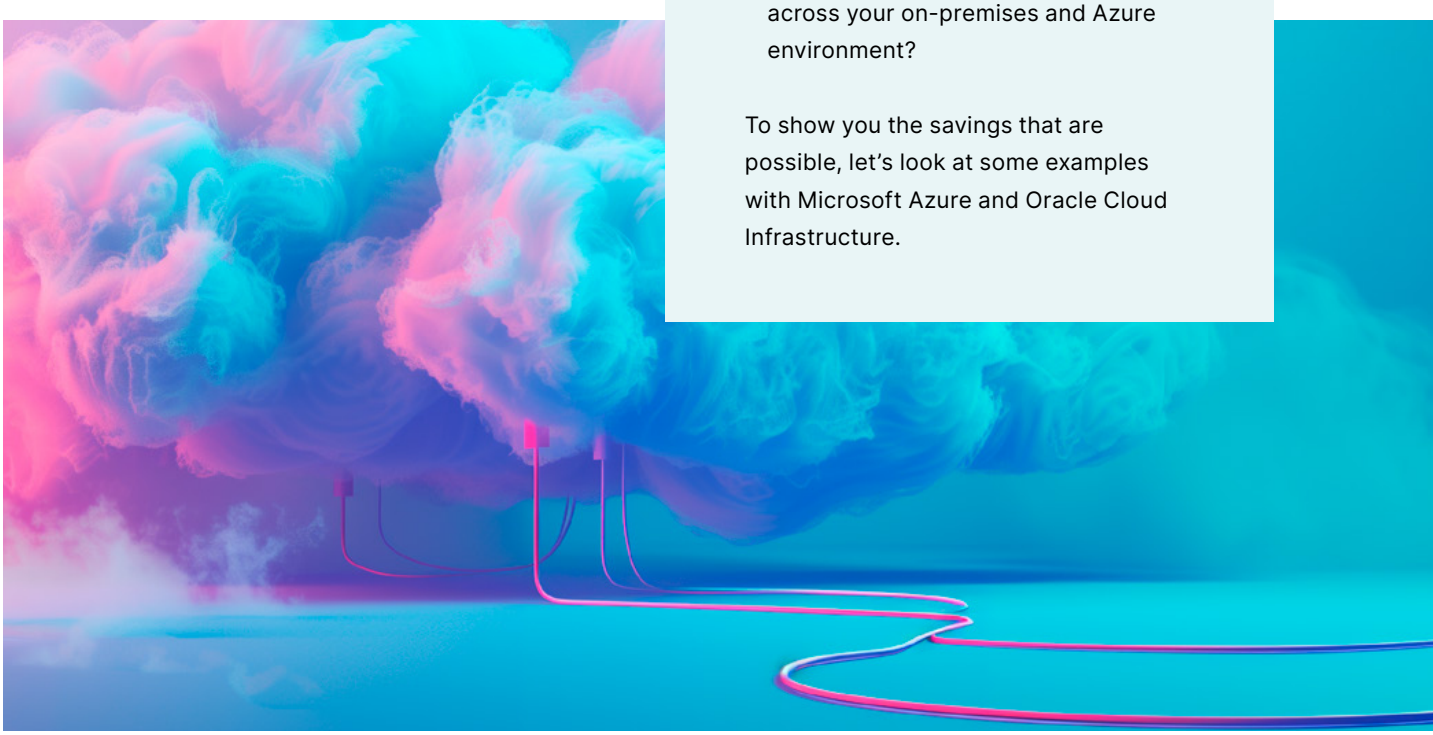
Conversely, BYOL can also introduce various non-compliance scenarios as the license rules from publishers typically differ between on-premises and the cloud. Both aspects mean that SAM's involvement in cloud management should be a C-suite imperative to help drive cost efficiencies and on-budget cloud deployments in the long-term.

Another savings strategy can be to transition existing PaaS resources (PAYG) to BYOL. Moving licenses from PAYG can significantly reduce spend but adds the responsibility of ensuring license compliance, especially when workload requirements increase and adding additional servers is needed to meet customer demand.

Before starting your BYOL initiative, you need to understand:

- What Windows Server and SQL Server workloads are BYOL eligible?
- Are there available licenses you already own?
- What is the savings impact of moving from PAYG to BYOL?
- What is your effective license position across your on-premises and Azure environment?

To show you the savings that are possible, let's look at some examples with Microsoft Azure and Oracle Cloud Infrastructure.



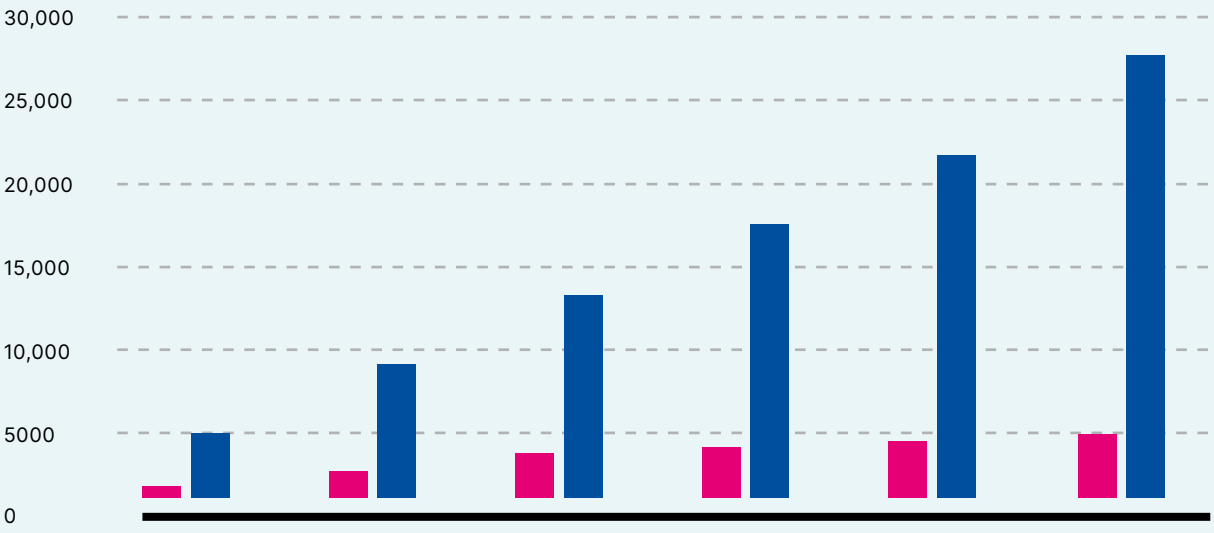
Microsoft cloud licensing

The first place to start when demonstrating SAM's value in the cloud is managing the use of Azure Hybrid Benefit. Available as a Software Assurance benefit for Windows Server & SQL Server (and some RHEL & SLES Linux), **Azure Hybrid Benefit can reduce costs by up to 85%** – a significant saving across your total workloads.

Here we have an example of using on-premises licenses (with Software Assurance) to cover the Windows Server OS portion of an Azure VM:

Windows Server in Azure

24 Cores, Standard Edition, 6/24h



	...1st year	...2nd year	...3rd year	...4th year	...5th year	...6th year
BYOL	$1,048	$2,097	$3,145	$3,594	$4,043	$4,492
License Included	$4,677	$9,355	$14,034	$18,712	$23,390	$28,068

Amortization over 3 years of license acquisition including Software Assurance, then Software Assurance only.

Management Tip

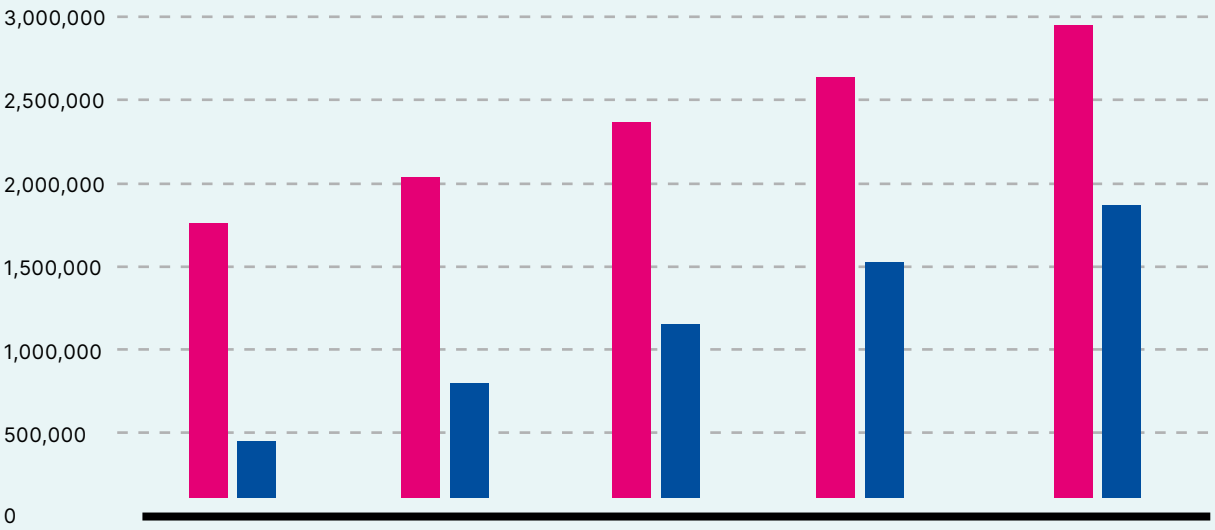
Microsoft Azure Hybrid Benefit is introducing new licensing rules that must be understood and managed on an ongoing basis. Without SAM's involvement, organizations may find themselves spending more money that necessary whilst simultaneously introducing non-compliance into their environment. Furthermore, as eligibility for Microsoft Azure Hybrid Benefit requires active Software Assurance, any decisions taken regarding the Microsoft contract must consider any potential impact on cloud spending.

Oracle cloud licensing

One of the core services in Oracle's cloud is, not surprisingly, the database. Oracle particularly promotes its "Autonomous Database," which manages a large part of the administration tasks itself – at a higher cost of course.

With all database models, there is also the option of using your own Oracle CPU (OCPU) licenses to reduce the rental costs. The graphic shows a comparison of the total costs of rent versus BYOL. In any case, purchasing your own licenses would not be recommended in this specific example.

Oracle Autonomous Database
(32 OCPUs, 7/24h)



	... 1st year	... 2nd year	... 3rd year	... 4th year	... 5th year
BYOL	$1,717,760	$2,027,520	$2,337,280	$2,647,040	$2,956,800
License Included	$376,778	$753,556	$1,130,334	$1,507,112	$1,883,891

Amortization over 3 years of license acquisition including Software Assurance, then Software Assurance only.

Management Tip

Oracle's BYOL model for Autonomous Databases requires OCPU licenses for Enterprise Edition with active support. For workloads with more than 16 OCPUs some additional database options must be licensed. Smaller databases with 8 OCPUs or less can also be covered with licenses for the less expensive Standard Edition.

All calculations are based on list prices, which can, however, be significantly lower depending on the contract model. Since rental costs are billed by runtime hours, this is a particularly relevant parameter for any comparative calculation besides the individual prices. Please note the corresponding assumptions in our examples.

Also note that in the scenarios shown it was assumed that the licenses for the cloud workloads must be procured separately. If you already have sufficient licenses of your own, only the annual maintenance costs may be incurred.

BYOL and Audit Risks

Cloud computing doesn't mean you escape compliance risks. In case you are migrating to the cloud there are vendors who might take the chance to scrutinize your on-premises licenses and squeeze out more money.

BYOL scenarios also come with audit risks. These licenses can be handy when shifting from a PAYG model while keeping your current setup, but they limit how you can use cloud services. Furthermore, the activation of BYOL usage rights is usually possible without proofing the existing of eligible licenses.

You need **software license management tools** and processes to track and manage these limitations. This ensures your BYOL cloud usage doesn't become a budget nightmare. Being compliant and knowing your licensing situation is always important. A planned cloud migration is a great time to review your environment and ensure everything's in order.

This isn't just a good audit defense; it also helps with the migration itself. Knowing what you use and need, re-harvesting licenses, and rightsizing your servers ensure you get the most out of your cloud licenses.

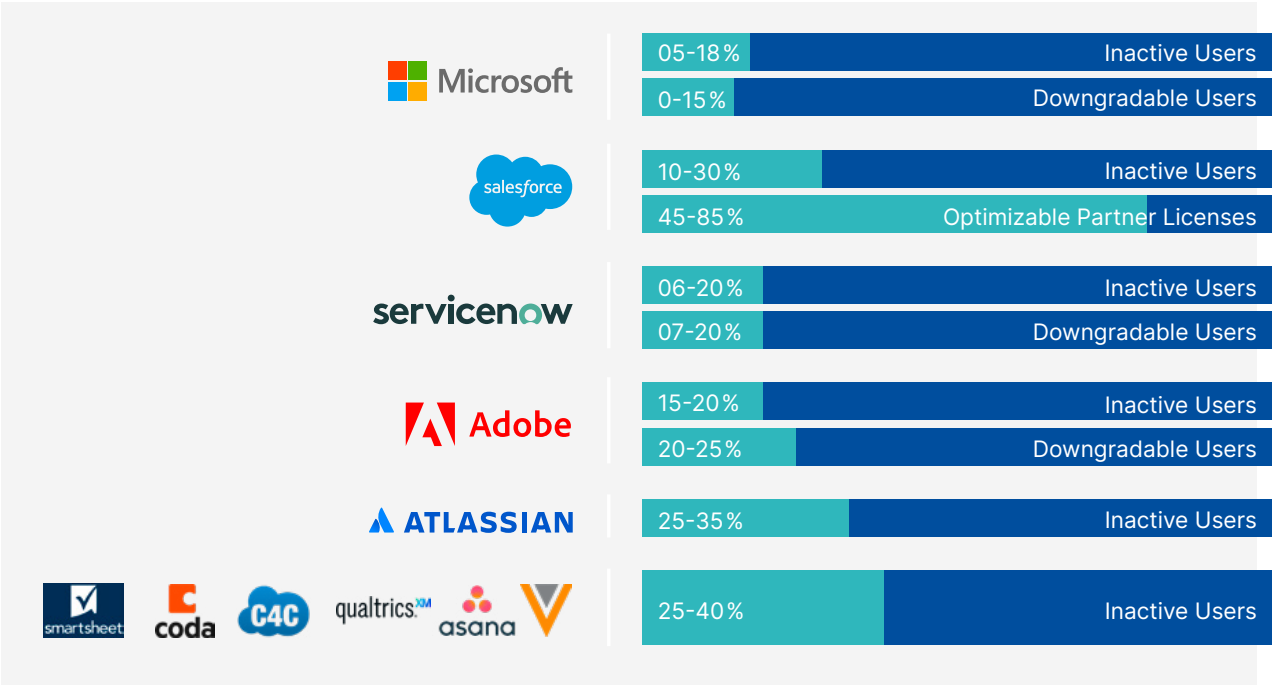
Dashboard: General analysis of compute instances, BYOL & hybrid use installations, USU Software Asset Management

Rightsizing SaaS Environments

As customers rely more on cloud services and their features, they lose some of their bargaining power. Even though procurement experts try hard to tackle these issues, they often struggle to prevent costs from rising with each contract renewal.

Switching to another provider could not only be limited but also expensive, and cost increases are especially high in monopolistic situations. That's why organizations need to manage their consumption to keep costs in check before renewal. It's estimated that **30% to 50% of applications go unused,** which is a significant area to address.

With a SaaS management solution, you can get a **complete overview of your SaaS portfolio** and all optimization potential with **just a few clicks**.

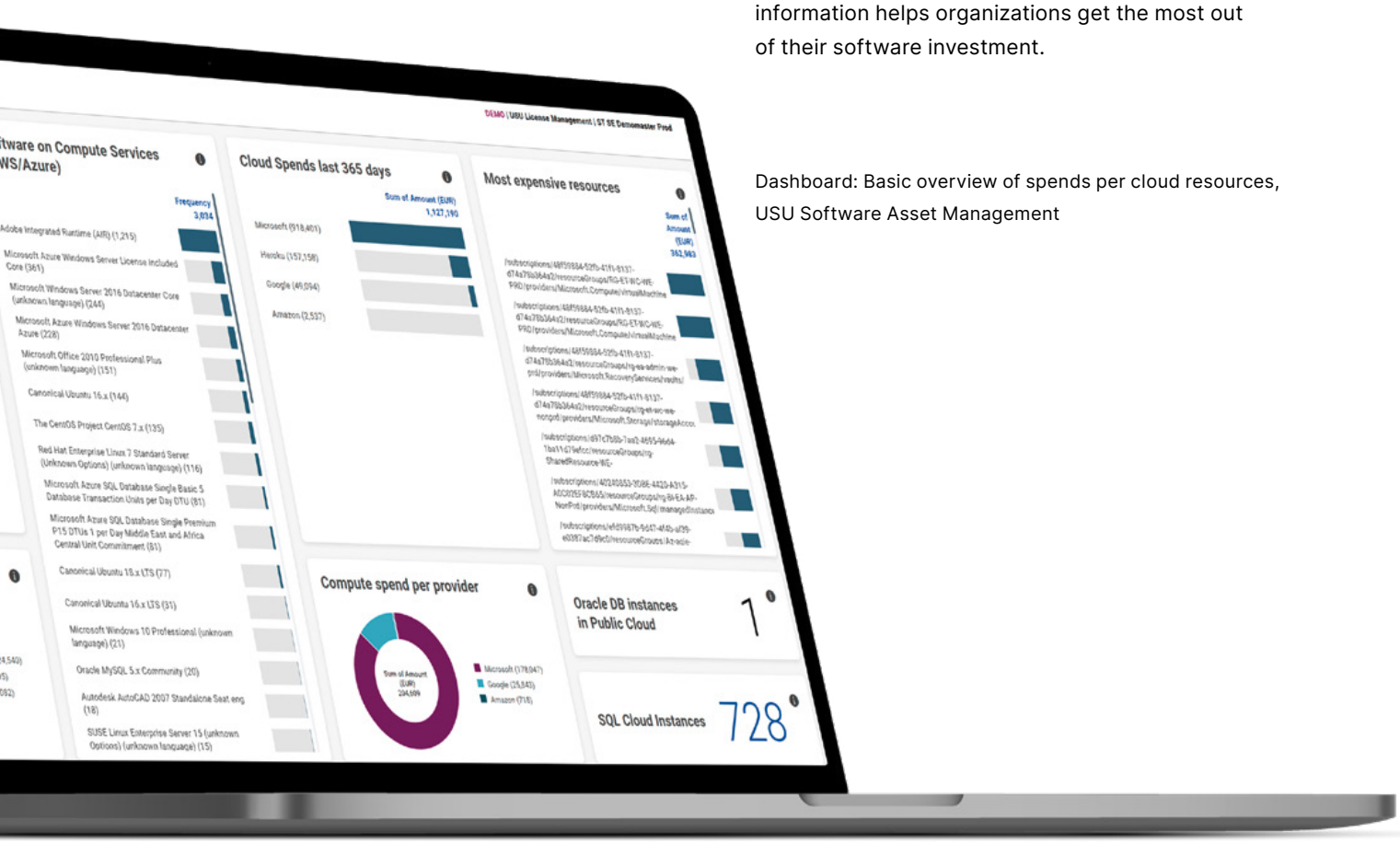


Rightsizing PaaS and IaaS Instances

Gartner warns that without proper metering and management, IaaS and PaaS unused licenses can become increasingly costly. **"Toxic consumption of PaaS and IaaS may occur where services continue to run incurring waste and unbudgeted costs."**

In IaaS and PaaS scenarios, it's important to keep track of how much CPU and memory you're using. As with a software license, use what you have, and make sure you have it set-up for your business needs. Having too many instances or making them too big can cost you significantly in the long term.

With a SAM program, you can use **SaaS optimization** capabilities to see exactly which licenses are being used and which are shelfware. This valuable information helps organizations get the most out of their software investment.



Dashboard: Basic overview of spends per cloud resources, USU Software Asset Management

Conclusion

Using public cloud can bring tons of challenges and opportunities for businesses. With the right approach, IaaS, PaaS, and SaaS can shine a spotlight on SAM and FinOps teams, giving access to new stakeholders, recognition, and budget as leadership realizes how your people, processes, and tools have a positive impact on the wider business.

Without strong SAM and FinOps practices working together, cloud waste is bound to happen with many apps and environments sitting underused. Unplanned growth in cloud services can spiral into toxic overconsumption if not managed, leading to big, ongoing costs.

SAM has great chances to team up with FinOps, Cloud Centre of Excellence, and IT Finance to cut and control cloud spending.

Tips for CIOs:

- Spot budget risks by checking software and cloud cost increases
- Invest in SAM and FinOps to tackle rising costs
- Ensure both teams understand what assets and resources are in use
- Foster a culture of action and realization from SAM and FinOps teams

Do you need further information or do you have any questions?
Most questions are best answered by direct contact. I look forward to answering your requests by phone. **Feel free to contact us.**

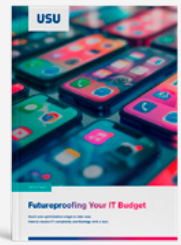
Sasha Stein
Sales Development, USU Software
Asset Management

More about Cloud Cost Optimization

White Paper: Cloud-Saving with Reserved Instances

How to leverage powerful cost optimization strategies without compromising IT performance

Download now



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How to master IT complexity and savings with a tool

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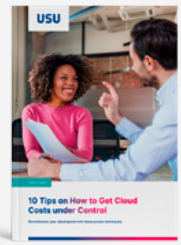

10 Tips to Get Cloud Costs Under Control

Revolutionize your cloud spend with these proven techniques

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About USU

USU Software Asset Management is your go-to solution for managing software licenses on-prem, hybrid, and in the cloud. Whether you're analyzing license consumption or simulating future needs, we help you navigate your tech stack with ease, ensuring compliance, cost transparency, and saving potential. Our in-house expert team, paired with our proprietary tools, offers a unique combination dedicated to your success.

Global leaders trust USU

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