THE ITAM REVIEW

How to Build an Effective Cloud Management Practice

Strategies, People, Processes, and Tools

AJ Witt & Robbie Plourde

Aspera USU

Table of Contents

Executive Summary

This paper outlines how to build an effective Cloud Management practice to ensure that using cloud foundations is safe, secure, and cost-effective. It highlights how to minimise Cloud Shock – the unexpected, unbudgeted cost increase from delivering IT services via public cloud.

With expenditure on cloud growing at least 15% per annum for the foreseeable future, there is a fundamental need for IT departments to track and control spend in these new environments. For many organisations, cloud spend starts with migrating existing on-premises workloads & applications to the cloud. IT Asset Managers are already responsible for the cost and risk control of these and this paper demonstrates that ITAM is the best approach to managing cloud spend throughout the solution lifecycle.

Introduction

This paper examines the cloud market, defines Cloud Shock, outlines the people, processes, and tooling required to manage cloud spending, and offers examples to optimise common cloud services including AWS, Office 365, and Salesforce.

What is cloud?

To understand the management challenge, it is first useful to understand some of the concepts and jargon around cloud. Cloud is a catch-all label for a variety of different technology deployment types. This whitepaper looks at Infrastructure-as-a-Service (IaaS), and Software-as-a-Service (SaaS). The fundamentals are the same – you choose to run some of your IT estate using infrastructure owned and managed by someone else, and you pay them for this privilege.

What is the size of the cloud market and likely growth?

Cloud usage is becoming business-as-usual across industry as highlighted by the following:

- Over 15% estimated growth per annum through 2021
- SaaS expenditure will overtake perpetually-licensed software spending in 2019
- Microsoft add over 2 million active Office 365 users every month
- AWS accounts for 58% of Amazon's worldwide operating income
- By 2021 the total market value is expected to be in excess of $240bn.
- Salesforce is expected to double its revenue by 2022

This growth highlights that cloud for the large players is highly profitable. The job of ITAM managers is to ensure that their organisations receive best value and service from their cloud investments.

Shifting Cloud Maturity – the rise of IaaS

Whilst the overall market is growing, the share of total cloud spend on SaaS is forecast to lag behind other areas, indicating SaaS may have reached greater maturity with organisations than IaaS or PaaS. IaaS spending is forecast to grow over 150% between 2017-2021, compared to just over 90% for SaaS.

Why are vendors and customers focused on Cloud?

Cloud and subscription services have become the preferred sales model for all software vendors. The primary driver behind this is repeatable, predictable, monthly income from software. This contrasts with a sales cycle based on 2-3 year release schedules which resulted in greater revenue uncertainty for software vendors. In return for committing to a subscription licensing model, customers benefit from access to powerful & flexible computing resources that wouldn't be practical or cost-effective to purchase and manage in-house.

All mainstream vendor strategies now drive cloud adoption – Azure & Office 365 for Microsoft, Creative Cloud for Adobe, and Oracle Cloud for Oracle. These vendors have seen their existing markets disrupted by new entrants such as Amazon AWS, Salesforce, ServiceNow, Slack, and Zoom. Salesforce & ServiceNow in particular have transitioned from being disrupters to being mainstream and now they in turn are being targeted by new start-ups seeking a slice of the cloud pie. With AWS the driving force behind IaaS, it is now Microsoft who are hunting them down and posting impressive growth and total market share numbers.

Cloud Management Challenges

IT Asset Managers are well-placed to build cloud into their current operational duties, but this is not without a number of challenges.

At a high level, there are three fundamental shifts - ***Capex to Opex Shift***, ***Continuous Waste***, & ***Shadow IT*** that cloud brings to the management of IT departments. The challenge is to ensure that we adapt to manage these shifts.

Capex to Opex Shift

Cloud is subscription-based meaning that costs are treated as Operating Expenditure (Opex). In contrast, perpetually-licensed software was often treated as a fixed asset and therefore accounted for as Capital Expenditure (Capex) and depreciated accordingly. Whereas perpetual licenses may have been written off over 5 years, subscriptions are payable in advance. This shift has an impact on IT budgets and investment appetite. Whilst preferences for Opex vs Capex spend vary according to business type and corporate culture, any shift changes the status quo and should prompt debate between CIOs and CFOs.

Continuous Waste

Secondly, cloud expenditure tends to be billed on a per employee basis (SaaS) or per minute basis (IaaS). It therefore becomes vital to ensure that subscriptions are being used to their full extent in order to avoid wastage. Wastage of SaaS spend is in the region of 35% – almost $35bn worldwide by 2020[1]. There are typically no refunds for unused capacity or subscriptions. Being able to track cloud usage becomes a vital capability in ensuring organisations get maximum value from their investments.

Shadow IT

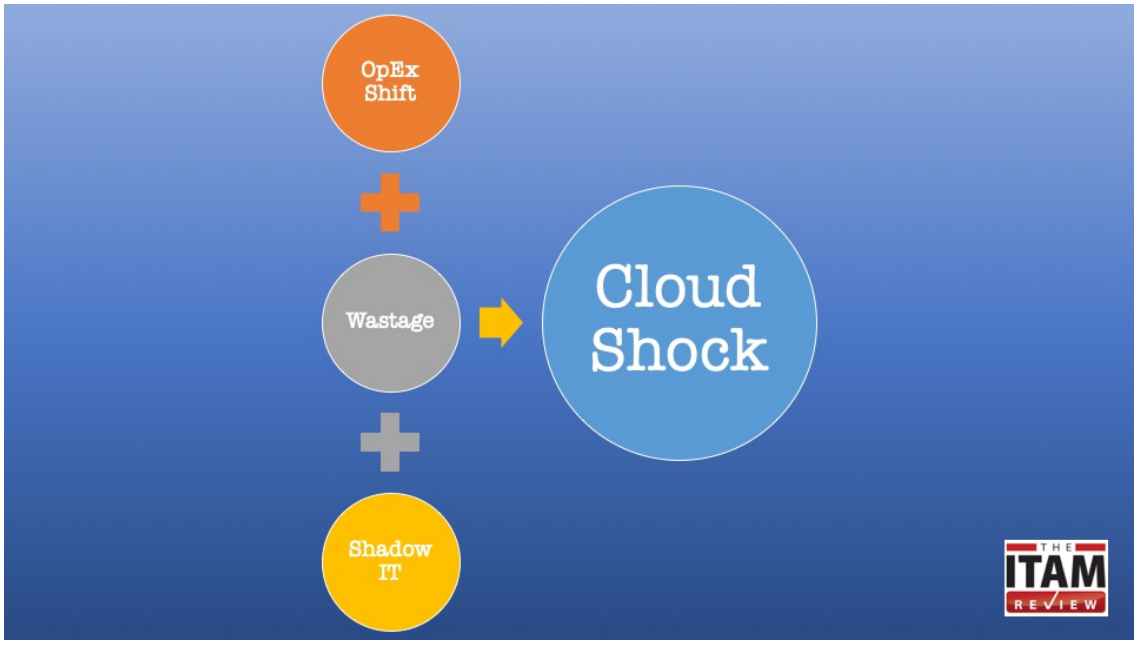
Salesforce revolutionised how software was sold. They targeted the end users of their software, not the IT or Procurement departments. Many a Salesforce relationship was founded on a Sales Manager's expense account. They are the grandfathers of Shadow IT, not least because their software required nothing to be installed on users' PCs and therefore required no IT involvement. With this change comes a raft of concerns around cost and risk management. Are we getting the best deal company-wide? Where is our customer data being stored? Do our users understand privacy laws?

Solving the Cloud Management Challenge

This section has outlined how growth in the cloud market alongside new management challenges creates both a risk and an opportunity for organisations. Risks are undoubtedly increased in terms of wastage and privacy & security. The opportunity offered by cloud may steamroller through those risks, at least initially. However, it is clear that organisations are realising that their cloud spend is unmanaged and out of control – as evidenced by comments around "Cloud Shock"[2].

What is Cloud Shock?

OpEx shift, Cloud Wastage, & Shadow IT are the high-level challenges contributing to Cloud Shock – unexpected cost increases typically uncovered in year two of digital transformation programmes or "Cloud First" strategies.



To a certain extent, these challenges go hand-in-hand. For example, Shadow IT can mean increased waste because expert ITAM & Procurement professionals aren't managing spend, and a per-minute or per-user pricing model can quickly get out of hand and blow your OpEx budget.

This isn't the whole story – there are nuances which we'll explore in the rest of this section. If we want to avoid Cloud Shock, we need to overcome some obstacles and also build the business case for why we should manage it.

Solving Shadow IT Management

First and foremost, it isn't possible to manage something if you don't have full visibility of it. To get to grips with Shadow IT you need to discover where it is being used, and then engage with stakeholders to help them extract best value from the expenditure. Only then can you address the challenges of reducing wastage and adjusting to an OpEx spend model.

Cloud Discovery

Clouds are fleeting, ephemeral things with the ability to leave you soaking wet if you go out without an umbrella. Similarly, it's easy for organisations to "take a bath" on their cloud expenditure. The great challenge here is that cloud is easy to buy and deploy but difficult to discover and therefore manage.

With nothing to install, there is no need to involve IT, and SaaS tool vendors take pride in ensuring adoption of their products is as seamless and frictionless as possible. This has the potential to make every employee a procurer of cloud products – everything from a free calendar integration tool to a $1000+ per annum Salesforce license.

Stakeholder Management

With every employee now a potential purchaser of cloud services, this puts greater onus on stakeholder management. It is important for ITAM teams to get out from behind their spreadsheets and talk to people – users, department heads, and people outside the traditional remit of an ITAM team. This may require new skills and a new approach. Communication is key, and just as an IT Security team might run internal communications campaigns on password management and phishing, so should an ITAM team on cloud usage, and particularly SaaS.

Departments which will typically need to be involved in discussions on cloud usage include Sales & Marketing (Salesforce) and Engineering/R&D (AutoCAD). An ITAM team may have a challenge to overcome if they're seen as being "from IT", so it is important to take an open, partnership approach.

If they're spending their departmental budget on cloud your ITAM team is there to help them get best value, not to pass judgement and to try to centralise control. They've procured it themselves because they didn't want IT involvement – it's not your job to tell them they've done it wrong and that you know best. For SaaS solutions concentrated in particular departments or divisions, it makes sense for the budget to be held where the value is created, but that shouldn't stop you from providing a service to help them manage that budget.

With these two key requirements – Discovery & Stakeholder Management in mind, it is possible to build a business case you'll be confident to deliver.

Building the Business Case

Cloud expenditure is growing. This is not an issue per se – what is important is ensuring that business use of cloud is secure, risk-managed, and good value for money. With potential fines for regulatory non-compliance increasing as a result of the GDPR & other privacy legislation, it is useful to consider Cost Control & Risk Management alongside each other. For example, unmanaged SaaS usage can both expose company data and be a waste of money.

Cost control

Managing cost for SaaS is similar to on-premises software. The question you should ask is the same – is this software delivering value for money? For SaaS, the metrics we can use for this are predominately around usage. Just as we might reclaim unused perpetually-licensed software, so we can do the same with SaaS subscriptions.

Wastage of SaaS subscriptions is around 35% or over $1000 per user per year.

For IaaS, the risk is the same virtual machine sprawl that has been the bane of on-premises datacenter managers. The difference is that where an unused on-prem virtual machine is consuming limited resources, in the cloud you're paying for it by the second.

We also need to ensure we're not paying for unused performance. It's so easy to specify vastly-overpowered cloud computing resources that you can end up using a Ferrari to pop to the supermarket. In the cloud, if you specify a virtual machine with 4 processor cores and 3 of them are sat idle, you'll still pay for 4 cores and get no benefit for three of them.

Risk Management

Cloud deployments present considerable regulatory compliance risks :

- Where is your data stored?
- What is it being used for?
- Who is accessing it?
- Does the cloud provider have appropriate controls in place?
- Do industry-specific regulations restrict your use of cloud?

And this is before we consider the fact that many organisations will vastly underestimate their use of cloud – particularly SaaS. Not knowing that sensitive personal data has been stored in an insecure cloud service will not be a valid defence when your Information Commissioner fines you in response to a customer complaint.

A cloud management programme will address many of these risks by providing visibility and the ability to restrict or prevent use of certain SaaS applications. With almost 90% of ex-employees retaining access to SaaS applications one month after leaving the business, your cloud management programme should also support a robust Joiners, Movers, and Leavers process.

Bringing it all together

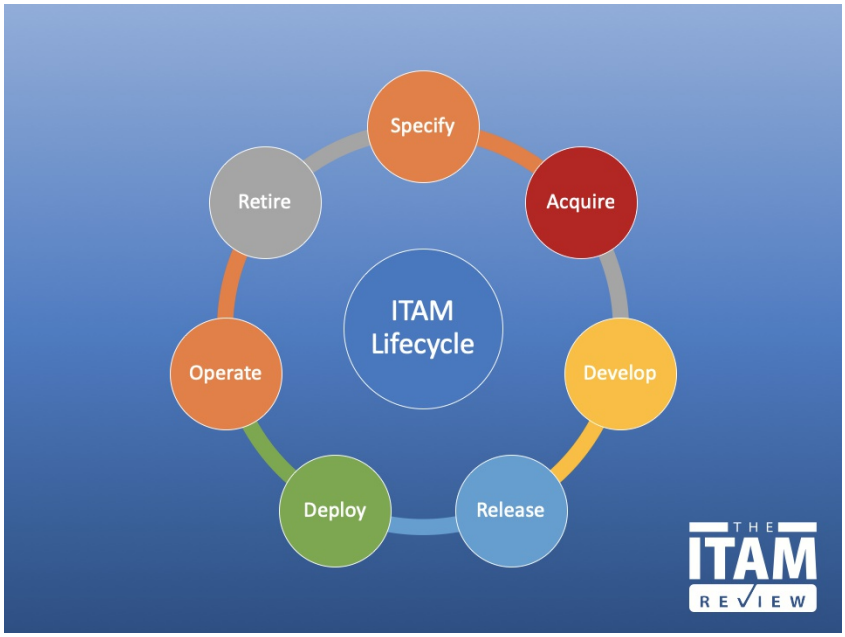
So far, we've explored the size of the cloud management opportunity, highlighted the risks, and suggested some key drivers for adding cloud management capabilities to your ITAM practice. What are the policies, processes, and tools we need to implement to reduce cloud shock and get to grips with cloud spend?

People, Processes and Tools for cloud management

The good news: the ITAM lifecycle still applies. If you already have a mature ITAM practice, you will have the resources to be able to deliver on the promise of cloud optimisation.

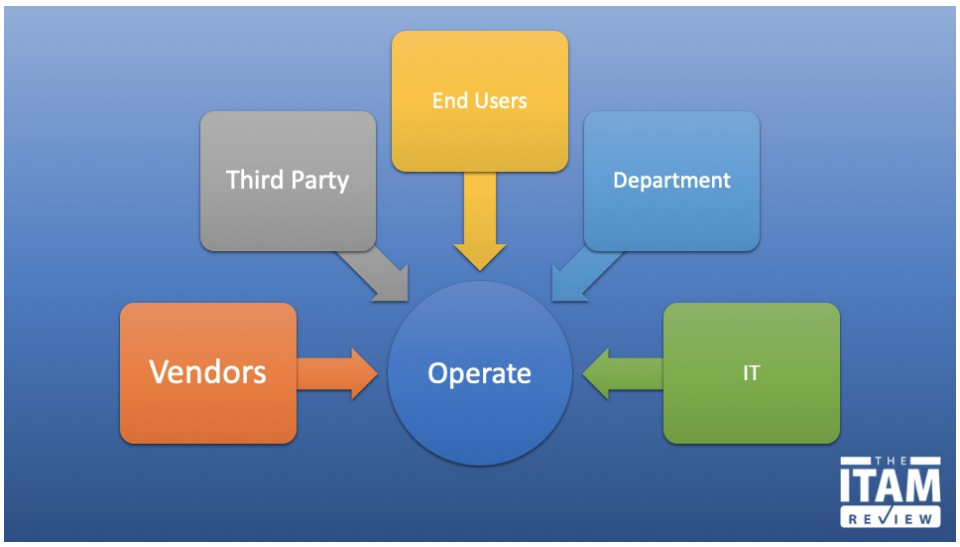
The ITAM Lifecycle

Here's a common approach to the ITAM lifecycle – assets are specified, acquired, sometimes developed, released, deployed, operated, and retired:



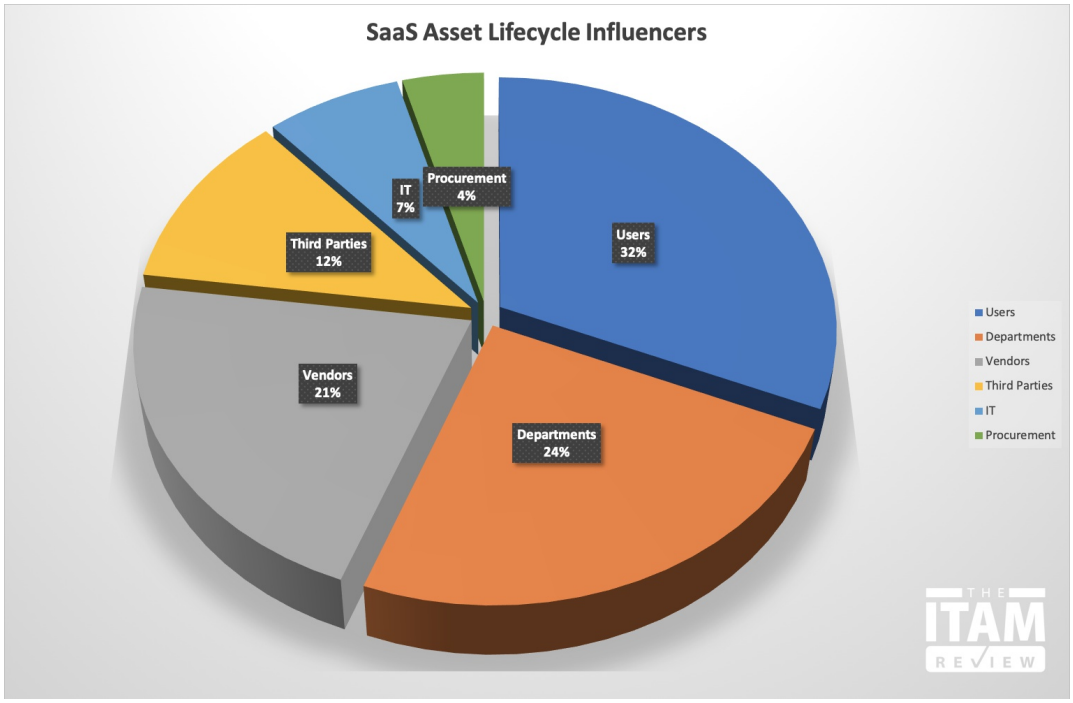
This lifecycle still applies to cloud management; the difference is that there are more stakeholders involved at each stage, and in general, central IT's role may be smaller compared to their role in managing perpetually licensed software.

For example, in the **Operate** phase, SaaS management stakeholders include:



The order of importance runs from left to right; in this phase, **Vendors** are undoubtedly the strongest stakeholder because they're providing the software as a service. That means they're solely responsible for maintaining the software – patching it, upgrading it, releasing new features. **Third parties** have a role to play here because they may well be providing functionality to the vendor via code libraries or plugins. **End Users** and **Departments** are also stakeholders. They may be submitting bug reports directly to the vendor or making feature requests via direct support channels. It is not uncommon for SaaS apps to be managed by the users/departments, leaving **IT** out of the loop. IT's role is undoubtedly diminished for all cloud deployments, but particularly SaaS.

The picture is similar across the lifecycle from Specify to Retire with the key theme being that IT has less influence over asset lifecycle than they did for on-premises deployments.



Here we see that across the entire lifecycle, **Users** and **Departments** have the greatest influence – 56%. Next is the **vendor** with 21%. At 77%, three-quarters of the influence across the lifecycle lies outside the traditional channels of **IT** & **Procurement**.

What is the impact of cloud on ITAM Operations?

This shift in influence is the reason that stakeholder engagement becomes so important for ITAM teams working in cloud-first organisations. It also is a strong signal that the future of the ITAM department doesn't necessarily sit within IT. End-users and the departments they work for hold the cards, not IT. If we are to gain control of cloud spend and build a cloud ready ITAM practice, we must start with stakeholder engagement. The software and technology stacks are no longer under IT (and ITAM's) direct control. Let's look at what that means for your ITAM team members.

Cloud Ready Team structure

In this section we'll look at some of the key roles in a cloud management team.

SaaS Subscription Analyst

The skills required to manage SaaS deployments are different to those required for managing perpetual on-premises deployments.

A SaaS Subscription analyst will work with a large volume of bills and contract renewals monthly. This is high cadence work, so it will require strong prioritisation skills to focus effort in the areas where the greatest savings can be made.

SaaS analysts will also conduct longer-term studies of the applications and capabilities in use at an organisation. For example, they may discover that your users use a mix of Dropbox, Box, OneDrive, and Sharefile for file storage and sharing. Can this be standardised? Dealing with a single vendor could potentially lower costs, improve productivity, and simplify management.

Along with optimising providers, there is the more traditional task of identifying, co-terming, and optimising vendor contracts. Multi-year deals and co-terming can often bring discounts and additional benefits, discounts and benefits that also apply to SaaS deployments. SaaS procurement is frictionless[3], and it is clear that committing to a longer-term deal with a SaaS provider can yield significant cost savings. For example, committing to a 12-month plan for collaboration application Slack saves you 20% – effectively you're getting 12 months for the price of 10. Easy savings if you're willing to commit.

To summarise, what does a SaaS Analyst role look like? Limited technical licensing knowledge, strong vendor management, good stakeholder engagement, strong prioritisation, and an ability to work at a high pace. You may find your future SaaS analyst outside of IT, perhaps in Facilities Management or Procurement. Equally, from within IT, this is a potential career move for a Service Desk Analyst.

IaaS Subscription Analyst

In contrast to the SaaS Subscription analyst, your IaaS-focused team will need to be more technical. Their key stakeholders are Infrastructure, DevOps, and those departments running their own cloud stack – teams such as engineering or data science may be prime stakeholders. They will need to speak the language of IaaS – cores, CPUs, instances, and so on – and understand how the various cloud services work. In the previous article, I highlighted how cloud sprawl and over-specifying can lead to significant wastage. The per-minute pricing of IaaS means that unnecessary spend can mount up very quickly, and there are usually no refunds. For an example, see Rich Gibbons' article on Netflix[4] inadvertently deploying 10,000 extra cloud instances.

Your IaaS analysts may therefore be your current technical licensing specialists. People with an attention to detail and the ability to ask probing questions of technical teams. People who are able to influence technical teams to do the right thing rather than the easy thing. If you have an analyst who has been instrumental in tidying up on-premises VM sprawl, they will be well-suited to this role.

Cloud Subscription Manager

Cloud Subscription Managers are responsible for setting up and reporting on the management framework for cloud. They will create and track KPIs, prepare forecasts, and work at the strategic level to optimise cloud capabilities and spend. CSMs will need to have excellent stakeholder management skills, particularly in establishing new processes to gain control of cloud spend and deployment practices. They will need to be able to work with stakeholders in departments who have until now managed their own cloud spend, budgets, and forecasts – and demonstrate how the Cloud Subscription Management Team can save the department money whilst ensuring they still have the right tools for the job.

Growth Opportunities

These three new roles are just the beginning. As your organisation's use of cloud grows so do the opportunities for your cloud subscription management team. You will need additional people in these roles plus some further roles to deliver a strategic approach to cloud management. These include:

Reporting, Budget & Forecasting Analysts

Many cloud services provide a huge amount of data which can be a goldmine for innovative reporting. Dedicated reporting, budget, and forecasting analysts will be able to assist budget holders to accurately forecast spend for the coming years, and also enable architects and business analysts to calculate the NPV & IRR of proposed solutions.

Relationship Managers

Some organisations with highly centralised IT functions have used business relationship managers (BRMs) to improve the relationship between IT and "the business". Their role is to understand departmental or functional requirements and either match them to existing services or help with project submissions for new ones. With the business now being IT, both in terms of being the means of production and building their own solutions from commoditised cloud servers, the focus should change to ensuring that the applications in use are the right ones. This is the purpose of the Relationship Manager role.
Relationship Managers will work with stakeholders to determine opportunities for standardisation. They'll work with employees to understand which apps they like, and which they don't. They'll report on the lifecycle of applications within the organisation. With up to 39% of an organisation's SaaS stack changing annually[3], this role is vital in ensuring that the benefits of long-term commitments are aligned with employee sentiment. We don't want to plough ahead with a 3-year deal for Webex if everyone prefers Zoom. Relationship Managers will also be experts in SaaS, being able to recommend the best application for a particular requirement.

Finance, Risk & Compliance Manager

This role may be necessary in larger teams to take some of responsibilities assigned to the Cloud Subscription Manager. They will ensure everything the organisation does in the cloud complies with both internal and external finance, risk, and compliance requirements. This role doesn't necessarily sit within the ITAM team – it will depend on the maturity of both ITAM and the organisation. Think of this role as an internal audit function – and one that can be applied to traditional ITAM activities such as generating ELPs and maintaining risk registers.

Tools specialists

In this cloud-first world there is still an important role to play for people with detailed knowledge of tools. Increasingly there will be a requirement to pull together multiple sources of discovery and inventory data into a single view. With no standard at present for IaaS & SaaS reporting, APIs and functionality, tool specialists will be the data cowboys, corralling all the many moving parts of cloud deployments into a unified view.

Build your Cloud Ready Team

The next page provides an outline for a cloud ready ITAM team. Of course, you will still be managing everything you manage today, but there will be opportunities for your team members to shift their focus to new challenges. As highlighted above, your licensing specialists may be well-suited to the data-driven analysis of IaaS spend, whilst your generalists will get to grips with vendor and stakeholder management. Having the right people is only part of the story though – and the rest of this article looks at the tools and processes.

Tool Capabilities for cloud first organisations

In order to start thinking about tool requirements it is useful to think about what those tools need to help us manage. The key themes are:

Diversity

In a perpetually licensed on-premises world, the tendency was to commit to a single vendor for hardware and similarly find strategic partners for software. So, your server hardware would have been from IBM, Dell, or HP and you'd have selected either MS SQL Server or Oracle Database for your strategic database deployments. For Productivity you may have standardised on MS Office, Exchange, and Sharepoint. This was easy when IT spending was centrally controlled by IT. Now that departments and individuals are specifying their own IT solutions there is a lack of standardisation, meaning your tools need to be able to consume data from a much wider variety of sources. This requires a flexible approach to discovery and inventory and puts a greater focus on the normalisation & reconciliation capabilities of a tool.

Scale

Digital Transformation projects represent a significant increase in the scale of technology deployments. There are no longer physical constraints placed upon your use of technology by the size of your datacenter, the cost to run it, or the number of employees required to maintain it. Your footprint can scale rapidly – literally at the click of a mouse button. Tools therefore need to be able to cope with this scale. Are your inventory agents up to the task? What about database updates?

Frequency

The scale and diversity of cloud deployments is further reinforced by an accelerated lifecycle. Your datacenter hosts may have had a 5-year lifespan, and you may have purchased MS Office and used it for the full ten years of extended support. The life of cloud infrastructure is sometimes measured in minutes, and rarely in years. Tools need to be able to continuously monitor cloud usage in order to optimise cloud spend and minimise risk.

The Perfect Tool

Tooling for managing cloud deployments, particularly from an inventory and discovery perspective, is currently fragmented and incomplete. There is no silver bullet here at present. The best approach we can take is to pick the right tools for our use-cases, and this will take careful analysis. Approach your potential cloud tool vendors with a detailed use-case and set of desired outcomes. Look to have an extensible toolset providing normalisation and optimisation capabilities by taking inventory and discovery data from a wide range of sources.

Processes

The final part of the puzzle is Process. Are your existing processes fit for purpose? What new processes & policies might you need? Conduct a review and close loopholes. If you have robust processes for controlling on-premises spend, software deployment, and an Acceptable Use Policy (AUP), you may just need to add processes specific to deployment scenarios – e.g. SaaS & IaaS. Start by thinking about what it is you want the process or policy to achieve. That should link back to the business case you made for managing cloud.

For example, if you're seeking to manage costs, have policies that control who is authorised to spin up services in the public cloud. Perhaps mandate that non-production environments are automatically shut down out of hours. For SaaS, consult with your stakeholders to determine the level of control you wish to apply, balancing the needs of departments with the needs of IT governance.

People, Tools, and Processes - Summary

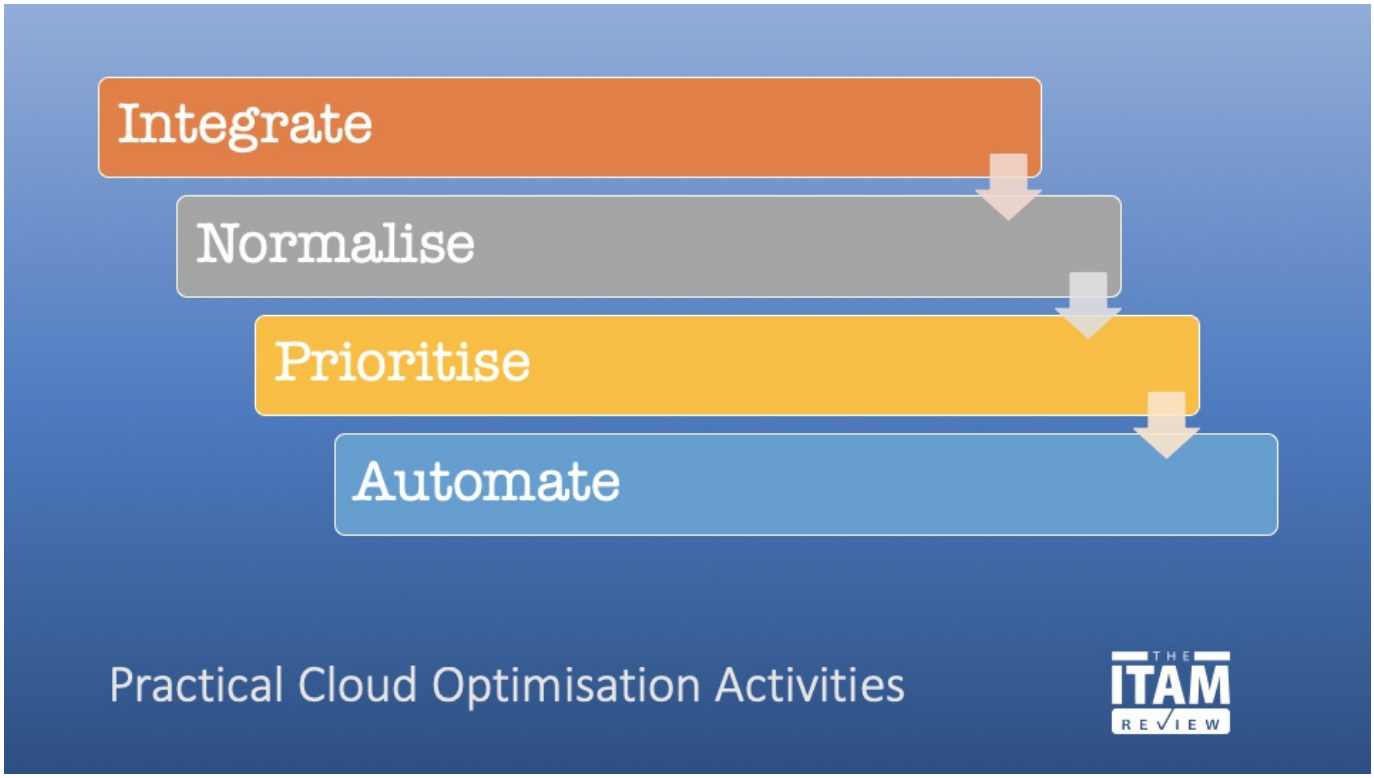
In this section we've outlined the People, Tools, and Processes required for successful cloud management. We've seen that our existing teams are well-equipped to handle the challenge, and that cloud provides opportunities for growth. Tools remain challenging due to the complexity and scale of cloud environments, meaning that we need to be careful in our selection, and recognise that for now we may need more than one tool to deliver. And our processes and procedures will need enhancing to cope with the challenges of cloud. With that in place, this paper concludes with some practical optimisation techniques for common cloud services.

Optimisation Techniques

Cloud services are generally billable by relatively simple metrics – per user or per minute. These metrics are easily measured, and the vendor is able to bill you very accurately, simply because they have full visibility of your usage of their service.

This means that virtually all cloud services have public price lists, a number of service tiers, and, in the case of IaaS, perhaps hundreds of SKUs built around differing service levels of computing resources.

The scale of cloud offerings mean automating optimisation is the key to success. You need to find a way to process and understand the billing information you receive from these services monthly, which can't be a manual process. Your team may no longer require the detailed publisher-specific knowledge of license terms, but it will need people who are able to prioritise workload and get to grips with integrating & normalising this veritable firehose of billing information.



These are the general principles – **integrate**, **normalise**, **prioritise** and **automate** for cloud optimisation. How do they apply to key IaaS & SaaS vendors?

1. Optimising Amazon Web Services (AWS)

Amazon Web Services (AWS) is a pioneer and dominates the public cloud IaaS market. What started as a way for Amazon to monetise systems that were only being used at peak times has grown into a huge ecosystem. AWS optimisation splits into two broad approaches – selecting the correct instance type and closing down un-utilised resources.

Choosing the right instance

AWS started as a means to acquire powerful computing resources on a Pay-As-You-Go (PAYG) model. Over time this PAYG model has evolved to meet differing use cases, such as permanent deployments, non-critical computing resources, and Bring-Your-Own-License (BYOL). Each instance type charges a different price for what is effectively the same amount of computing power.

Using Reserved Instances

Reserved Instances provide predictable license costs for long-term deployments. If you know that you will be using a particular server for 3 years, committing to that spending via a Reserved Instance will save you money. Reserved Instances guarantee computing resources for a period of either 1 or 3 years. In exchange for your commitment, AWS will provide substantial discounts – perhaps up to 65% versus an unreserved on-demand instance.

Using Spot Instances

The flip-side to Reserved Instances is Spot Instances. In this case, there is no commitment from AWS to provide you with any computing resource. This lack of commitment from AWS means that spot instances are the cheapest type of AWS resource – up to 80% cheaper than list price. The downside is that with no guaranteed compute available, they can't be used for mission critical or production workloads. Amazon make Spot Instances available because they have to have capacity to cope with peak demand – for example month end, or Black Friday. For the days when demand is low, this capacity is still switched on, ensuring that Amazon will at least see some revenue. And they know that for many deployment scenarios a spot instance simply isn't practical, so the risk of everyone buying spot instances is low. Furthermore, the greater the demand for spot instances, the higher the price.

Bring-Your-Own-License (BYOL)

Certain publishers enable you to make use of existing licenses in public cloud deployments. For example, Microsoft allow this for most of their server and application products. However, in order to benefit from this approach, existing license terms often require that you will have to purchase a Dedicated Instance. Dedicated Instances are physical hardware assigned to your company, and only your company. This ensures compliance with license reassignment rights for example – particularly for Microsoft software if you don't already have Software Assurance-granted mobility rights. Dedicated Instances are the most expensive of all AWS general compute products. As such, BYOL probably makes little sense from a pricing perspective, particularly once you factor in compliance costs and the added complexity of deploying on-premises licenses in the cloud.

Automated Shutdown

If you leave an instance switched on 24/7 for a whole month, you'll be charged for 728 hours. But what if your AWS instances are only being used during business hours? If we assume that's 8 hours per day, leaving instances permanently running increases your costs three-fold. Find a way to identify which instances can be turned off and work with your cloud team to ensure that they are switched off at the end of the working day. DevOps instances are a prime source of optimisation via automated shutdown, as they may only be active during business hours.

Reduce VM sprawl & Right-size instances

Similarly, track usage of instances to determine whether they're actually in use and providing business value. The VM sprawl that plagues on-premises datacenters still exists in public cloud deployments; the difference is that there is now a per-minute charge associated with it.

AWS has hundreds of instance types, each with their own allocation of computing power, memory, and storage space. Track the utilisation of these key metrics, and work with technical teams to shrink over-sized instances and reduce costs.

2. Optimising Microsoft Azure

Much of the above section on AWS optimisation also applies to Microsoft Azure. However, Azure does include one significant benefit for Windows Server & SQL Server licensees – Azure Hybrid Benefit (AHB). AHB can result in cost savings of around 40% for Windows Server & SQL Server. Perhaps to be expected, there are complexities associated with this approach, particularly around reassignment rights (90-day rule) and dual use. Even so, this could be a means to enable transition from on-prem workloads to Azure at a lower cost than expected.

3. Optimising SaaS applications

The SaaS market is dominated by publishers that provided and continue to provide you with perpetually-licensed on-premises software. The market leader, for example, is Microsoft, and Adobe is also in the top 3.

How do we go about optimising spend with these mega-publishers?

Adobe Creative Cloud

Adobe was the first mainstream publisher to convert from perpetual licensing to SaaS subscriptions, starting in 2011. Optimisation for Creative Cloud is simple with effectively only two purchasing options to consider for most enterprises – Single App, or All Apps. Furthermore, it is relatively easy to track usage, and there is also the opportunity to get several weeks of free app usage by being mindful of your monthly proration date.

Subscription selection

As a rule of thumb, if a user only requires a single app, buy a Single App subscription. If a user requires 2 or more applications, buy an All Apps subscription. That's it. There are exceptions to this rule, particularly if one of the apps is Lightroom or Acrobat, but in general this holds true, particularly given that Adobe regularly discounts the All Apps bundle.

Determining Usage

Furthermore, because Creative Cloud apps are installed locally, your existing SAM tools should be able to detect whether an application is being used. Creative Cloud subscriptions are always co-termed to an annual anniversary date so all you need to do is reconcile usage against assigned subscriptions around 2 months prior to the renewal, and only renew the subscriptions you require. You don't even need to uninstall the software if the user's subscription has been removed, because it will be automatically deactivated by Creative Cloud's licensing server.

Optimising your Proration date

For those seeking to squeeze even more cost savings from Creative Cloud, it may also be worthwhile paying attention to the monthly proration date. By doing so, and timing your purchases, you can get almost your entire first month subscription for free. To do this, purchase your first Creative Cloud subscription at month end, and ensure that your purchasing team buy subsequent licenses the day of the month after your proration date. It's a small saving – an All Apps subscription costs around £2 per user per day – but requires no effort other than instructing your purchasing team to submit new orders the day after your anniversary & proration date.

Microsoft Office 365

Opportunities for optimising Office 365 are two-fold. Firstly, look at overall usage stats. If a user has a subscription assigned but are showing no usage, investigate and potentially suspend/remove that subscription. If you're in an EA, you won't have the opportunity to true-down immediately, but at least you can put that subscription back "in stock" for allocation to new employees. If you're buying O365 via Cloud Solutions Provider (CSP) – good news – you can true-down each month to remove unused subscriptions.

With unused subscriptions identified and optimised, the next step is to look at the assigned subscription level. This is somewhat more complex, not least because Office 365 has four subscription levels for Enterprise customers. How do you determine which subscription a user needs? Office 365 optimisation tools will provide this information by tracking usage of individual components.

Salesforce

Salesforce effectively invented the Software-as-a-Service business model. By doing so, and by being hugely successful (at least 15% revenue growth per annum year on year since day 1), they have revolutionised how software publishers do business.

As with other services, your optimisation opportunities around Salesforce are in getting your users on to the correct level subscription and recycling dormant subscriptions. For Salesforce licensing, the elevator only goes up – there is no possibility to true down – so it is important to only buy new licenses when it is absolutely necessary.

Salesforce optimisation is complex, but fortunately they provide the ability to integrate external toolsets. These toolsets to varying degrees can suggest potential optimisations, baseline your usage, and provide cost forecasts.

Conclusion

This paper has highlighted how your ITAM team can lower the risk of Cloud Shock by putting in place the right people, processes and tools. In doing so, ITAM will reduce costs and address regulatory and compliance risks. This is an opportunity for ITAM teams to directly improve the business value chain by engaging with stakeholders business-wide. With products and services increasingly built on cloud foundations it is more important than ever that organisations take the correct steps in managing cloud. By doing so you reduce risk, lower costs, and deliver better outcomes for your customers.

About Aspera

At Aspera, we simplify the complexity of your software and cloud licenses. For nearly two decades, we've helped hundreds of enterprises and over 50 Global Fortune 500s to assess cost and risk within their IT environments. Our solutions for Software Asset Management track all the big vendors, such as IBM, Microsoft, Oracle and SAP to cover every server, desktop, cloud service and mobile. With the largest in-house consultant and service team in the industry, we provide the best strategy for data discovery, easy system integration, and cost-effective data centers.

About The ITAM Review

The ITAM Review began in 2008 so that anyone involved in the SAM or ITAM industry could share their expertise, feedback and opinions of the technology and services in the market for the benefit of others. Our mission is to provide independent industry news, reviews, resources and networking opportunities to Vendors, Partners, Consultants and End Users working in the areas of ITAM, SAM, and Software Licensing

Author Biographies

AJ Witt, Industry Analyst, The ITAM Review

AJ Witt is an experienced IT Asset Manager with a 25-year career in FTSE100 & Fortune 500 companies. At The ITAM Review he specialises in SaaS Management & Tooling.
A graduate of the School of Management & Finance, University of Nottingham, he enjoys music, travel, cycling, and spending time with his family.

Robbie Plourde, SVP of Global Sales Engineering, Aspera

Robbie is a charismatic IT Business Executive with a broad background in international business. In his Senior VP role at Aspera, Robbie is responsible for Global Sales Engineering activities and License Management program leader. He has led process improvement initiatives and developing solutions that enable strategic and operational business goals for over a decade. Robbie holds both (PCOLM) Practitioner Certificate in Oracle License Management and (PCILM) Practitioner Certificate in IBM License Management. In the past 16 years, Robbie has specialized in corporate License Compliance initiatives for Fortune 500 companies in Europe, Asia, and the US. He holds an MBA from Quinnipiac University where he graduated Magna cum Laude.

References

[1] Zylo, State of Software Management in the Cloud, 2018 https://zylo.com/downloads/2018-state-of-software-management/ & Gartner, Worldwide Public Cloud Revenue forecast 2018 https://www.gartner.com/en/newsroom/press-releases/2018-09-12-gartner-forecasts-worldwide-public-cloud-revenue-to-grow-17-percent-in-2019

[2] Software One, Managing and Understanding On-Premises and Cloud Spend, https://www.softwareone.com/on-premises-and-cloud-spend-survey/

[3] The ITAM Review, Frictionless SaaS – Trends for 2019 https://www.itassetmanagement.net/2019/03/13/frictionless-saas-trends-for-2019/

[4] The ITAM Review, How Netflix Over-Deployed 10,000 instances in Amazon AWS https://www.itassetmanagement.net/2019/04/23/how-netflix-over-deployed-10000-instances-in-amazon-aws/