

SAM Insourcing Vs Outsourcing

There are many aspects to consider and what is right for one organisation will differ to another so to help you toward the right choice, this Whitepaper considers and explores numerous factors that need to be understood and weighed up before an informed decision can be made.

To Insource or Outsource?

That is the question many organisations ask at some point during their Software Asset Management (SAM) journey, from initial recognition that effective SAM is important in avoiding risk and minimising cost, to fully embracing SAM in line with ISO19770-1.

There are many aspects to consider and what is right for one organisation will differ to another so to help you toward the right choice, this Whitepaper considers and explores numerous factors that need to be understood and weighed up before an informed decision can be made.

This includes cost, which is an important element but often there are external factors beyond your control to make the decision making process extremely challenging but careful planning and ongoing monitoring can make all the difference between success and failure.

Highlights

- Importance of effective SAM
- The SAM Journey Step by Step
- ISO/IEC 19770-1 Overview and Correlation with ISO 27001
- Understanding Your Requirements
- SAM Tools – Do you need more?
- Skills and Knowledge Requirements
- Insourcing/Outsourcing Pros and Cons
- Cost Implications
- Finding the Right Staff or Partner



Table of Contents

To Insource or Outsource?	2
Highlights	2
What is Effective SAM and Why is it so Important?	4
What's the likelihood of having to prove you're correctly licensed?	5
The SAM Journey	6
Review	6
Discover.....	6
Measure.....	6
Optimise.....	6
Control	7
ISO Standards	8
ISO/IEC 19770-1 SAM	8
Software Asset Identification	8
ISO/IEC 27001 Information Security Management	9
CSC 2: Inventory of Authorized and Unauthorized Software	10
What do you Actually Require?.....	11
SAM Tools	12
Skills & Knowledge	14
Insourcing/Outsourcing Pros and Cons	15
Cost Implications	16
Finding the Right Staff or Partner	17
Staff.....	17
Partner	18
So which is Best, Insourcing or Outsourcing?	18

What is Effective SAM and Why is it so Important?

To most, SAM is somewhat of a 'dark art' and few organisations really understand how important it is to ensure licensing agreements are adhered to, that is, until it's too late. Getting it right is important and in today's environment, the following must be seriously considered:

Fact: Software is expensive.

Fact: Licensing is complex by vendor design.

Fact: Skilled resource is expensive.

Fact: SAM experts are difficult to find.

Fact: There is significant risk associated to getting SAM wrong.

Fact: Executive buy-in dramatically increases the success of SAM.

So why do many organisations believe inexperienced staff can; effectively manage SAM, negotiate favourable terms with resellers and vendors, efficiently handle vendor audits and ultimately optimise software usage to save, what can result in, significant amounts of money?

It's a bit like asking a team of trainee accountants to; produce the organisation's annual accounts, negotiate funding with the bank, minimise taxation and devise a future finance strategy. They understand finance but to reach the appropriate skill and experience level, resourcing and funding the team has to be right.

So from an Executives viewpoint, what are the benefits of applying the right resourcing and funding to SAM?

Reduced Operational Costs

By reducing the time it takes to gather information required to enable effective decision making. Having accurate and up to date information enables the management team to respond quickly and efficiently to operational demands.

Increased Company Profitability

With software licensing now accounting for a good proportion of your IT budget, there has never been a better time to reduce your overall software expenditure. Understanding your effective license position enables you to purchase more effectively, thus significantly reducing financial expenditure.

Reduced Operational Disruptions

With vendors now actively seeking out organisations who do not manage their software assets effectively, it is highly likely that your company will be subject to significant operational disruptions as a result of an in-depth vendor audit. Maintaining your license entitlements and continuing to verify your compliance position enables you to respond quickly and effectively to any regulatory request, thus reducing costly disruptions to your core business activities.

Improved Financial Control

As with any other company asset, it is essential that your organisation implements effective financial controls to protect and maintain your software assets. Your organisation is contractually required to keep records and is just good corporate governance to ensure that this is being carried out.

Reduced Unbudgeted Expenditure

Following a Vendor's audit, many organisations find they are subject to significant un-budgeted expenditure that has a negative impact on their profitability. Implementing effective SAM processes mitigates this risk and ensures that you minimise the threat of exceeding budgetary expectations.

Improved Supplier/Vendor Relationships

Due to having limited controls of software assets, most organisations fear communicating with vendors and always feel on the back foot when negotiating new contracts or license renewals. Having accurate and up to date information at your fingertips guarantees improved vendor relationships and provides greater purchasing control and effectiveness.

What's the likelihood of having to prove you're correctly licensed?

According to Gartner;

'Your organisation has a 68% chance of receiving at least one audit request in the next 12 months.'

For those without an effective SAM programme and unheeding this kind of industry message, when a Letter of Engagement is received, it is often followed by months of costly disruption, which frequently results in a large, additional licensing bill.

The sentence above may seem to highlight a straightforward process but the impact must not be underestimated, therefore, to try and add weight, please review the following and determine how you could fulfil the requirements of an audit, which includes but is not limited to, you having to provide the following:

- Full hardware inventory of all devices, including desktops, laptops, mobiles, servers, active/passive, virtualised, cloud, development etc.
- Robust data from your inventory tools showing all software, including version and media used.
- Finding proof that you are entitled to install and use the software that is deployed and/or used. This can be extremely challenging if your organisation has been less than diligent in maintaining records across all business units and departments. Below is some of the evidence required and if you can't produce it, then the organisation is in breach of its agreement(s).
 - Provide evidence of Certificate of Authenticity (COA) from hardware
 - Produce physical media, COA, paid Invoices.
 - If using an outsourcer for any hardware/software provision, you will need to work with them to provide information they and/or you keep in relation to hardware and software.
 - Details of your company structure and ownership, including share types and their allocation.

But what is Effective SAM and what is involved in implementing robust processes and procedures? Take a look at The SAM Journey on the next page.

The SAM Journey

The stages below highlight the areas that need to be considered when implementing effective SAM, whether you are going to manage internally or externally.

In fact, these processes are vital to helping your organisation understand what it requires as they provide a basis from which you can evaluate the pros and cons of insourcing and outsourcing.



Review

It is essential that risks produced from existing hardware and software license management activities are identified prior to implementation. Correctly defined project requirements and focusing on areas that guarantee the greatest return on investment is essential. This must include, reviewing the policies, processes and systems required to deliver effective SAM.

Discover

Selecting the right SAM tools can be extremely challenging and always depends on first fully understanding the metrics needed to be measured and controlled. Organisations need to follow an objective selection process, ensuring requirements are correctly defined and that any technology platform being considered, delivers expected outcomes, which can only be done by insisting potential vendors fully demonstrate their system to deliver accordingly.

Measure

Essential for any effective SAM program are the processes required to protect, control and manage license user rights, whilst ensuring allocation and consumption of those rights are maximised and allocated effectively. License experts are required to perform this complex reconciliation process, ensuring you understand and can maintain your compliance position.

Optimise

License Optimisation is the process of managing and controlling your software assets, ensuring that your company is maximising the consumption of existing product user rights, minimising total cost of ownership and purchasing with greater efficiency and confidence.

Most organisations recognise that, without having accurate and up to date software license information available when purchasing software licenses, it is near impossible to ensure that the company is licensed correctly. In addition, without the controls in place to monitor usage and check license availability, many organisations purchase too many licenses.

To identify and realise significant cost savings you must be able to carefully analyse your Effective License Position (ELP) and with the implementation of common sense processes, you should be able to achieve savings using a number of optimisation techniques.

Control

SAM is an ongoing process not an event and with a forever changing market, you must continue to maintain your systems and processes.

Inefficiency can lead to an over-spend of up to 30% each year.

It is only with the right skills and knowledge that you will be able to continue to base line your ELP and ensure your organisation is able to maximising license consumption and drive significant cost savings into the future.



ISO Standards

ISO/IEC 19770-1 SAM

To be fully effective in managing software assets, working toward and achieving the outcomes detailed in ISO/IEC 19770-1 SAM is ideal. In reality, very few organisations have been able to achieve all 70 outcomes of the 27 processes it defines but providing they have been considered as to how they relate to their own operations and identify areas of priority for improvement, this follows the method for intended use.

With the above approach being used as the basis for continuous improvement of SAM and license compliance, it will enable an organisation to demonstrate that it takes SAM seriously enough to demonstrate good corporate governance. Below are key groups of the core processes typically chosen as priorities to provide a good foundation for SAM:

- Inventory Processes
- Verification and Compliance Processes
- Operations Management Processes and Interfaces

The above groupings are broken down into specific processes, each with objectives and outcomes. One of the processes in relation to Inventory Processes is Software Asset Identification;

Software Asset Identification

Objective:

The objective of the Software asset identification process is to ensure that the necessary classes of assets are selected and grouped; and defined by appropriate characteristics that enable effective and efficient control of software and related assets.

Outcomes:

Implementation of the Software asset identification process will enable the organisation to demonstrate that:

- a) Types of assets to be controlled and the information associated with them are formally defined, taking into account the following:
 - 1) Items to be managed are chosen using established selection criteria, grouped, classified and identified to ensure that they are manageable and traceable throughout their lifecycle.

Note: Business and safety critical assets and high risk assets need to be prioritized and may be controlled at a more detailed level.

- 2) Items to be managed include:
 - i) All platforms on which software can be installed or run
 - ii) Software definitive master versions and distribution copies
 - iii) Software builds and releases (originals and distribution copies)
 - iv) All installed software
 - v) Software versions
 - vi) Patches and updates
 - vii) Licenses including underlying licenses and effective full licenses
 - viii) Proof of license documentation

- ix) Contracts (including terms and conditions) relating to software assets, including both hard-copy and electronic
 - x) Both physical and electronic stores of the above, as relevant
 - xi) Licensing models
- 3) Software should be manageable both by files and by packages corresponding to specific products released by software manufacturers or developers.
- 4) Basic information required for all assets is
- i) Unique identifier
 - ii) Name/description
 - iii) Location
 - iv) Custodianship (or owner)
 - v) Status (e.g. test/production status; development or build status)
 - vi) Type (e.g. software, hardware, facility)
 - vii) Version (where applicable)

NOTE: Data validation requirements may also be defined as part of this process.

- b) A register of stores and inventories exists, clarifying which stores and types of information are held, with duplication allowed only if duplicate information can be traced back to the definitive source record.

All processes follow this format and to ensure your organisation achieves what it requires from ISO/IEC 19770-1 SAM, it is recommended you revisit the Review stage of the SAM Journey (as described previously) to determine the appropriate objectives in conjunction with what is realistically achievable in the short and medium terms.

For further details on ISO/IEC 19770-1 SAM please visit: www.iso.org

ISO/IEC 27001 Information Security Management

Depending upon who you speak with, Information Security Management (InfoSec) receives a higher priority than SAM but SAM managers will no doubt argue differently. However, there is a good correlation between the two and many of the processes can be overlaid against each other and be used to build a stronger business case when trying to secure executive support and corresponding budget to implement properly.

There is a top 20 of Critical Security Controls and from the top 5 headings shown below you can see areas where the two are closely linked:

- CSC 1: Inventory of Authorized and Unauthorized Devices
- CSC 2: Inventory of Authorized and Unauthorized Software
- CSC 3: Secure Configurations for Hardware and Software on Mobile Device Laptops, Workstations, and Servers
- CSC 4: Continuous Vulnerability Assessment and Remediation
- CSC 5: Controlled Use of Administrative Privileges

CSC 2: Inventory of Authorized and Unauthorized Software

Actively manage (inventory, track, and correct) all software on the network so that only authorized software is installed and can execute, and that unauthorized and unmanaged software is found and prevented from installation or execution.

Why Is This Control Critical?

Attackers continuously scan target organizations looking for vulnerable versions of software that can be remotely exploited. Some sophisticated attackers may use zero-day exploits, which take advantage of previously unknown vulnerabilities for which no patch has yet been released by the software vendor.

Without proper knowledge or control of the software deployed in an organization, defenders cannot properly secure their assets. Organizations that do not have complete software inventories are unable to find systems running vulnerable or malicious software to mitigate problems or root out attackers.

Managed control of all software also plays a critical role in planning and executing system backup and recovery.

How to Implement This Control

ID#	Description	Category
CSC 2-1	Deploy application whitelisting technology that allows systems to run software only if it is included on the whitelist and prevents execution of all other software on the system. The whitelist may be very extensive (as is available from commercial whitelist vendors), so that users are not inconvenienced when using common software. Or, for some special-purpose systems (which require only a small number of programs to achieve their needed business functionality), the whitelist may be quite narrow. When protecting systems with customized software that may be seen as difficult to whitelist, use item 8 below (isolating the custom software in a virtual operating system that does not retain infections).	Quick win (One of the "First Five")
CSC 2-2	Devise a list of authorized software and version that is required in the enterprise for each type of system, including servers, workstations, and laptops of various kinds and uses. This list should be monitored by file integrity checking tools to validate that the authorized software has not been modified.	Quick win
CSC 2-3	Perform regular scanning for unauthorized software and generate alerts when it is discovered on a system. A strict change-control process should also be implemented to control any changes or installation of software to any systems on the network. This includes alerting when unrecognized binaries (executable files, DLL's and other libraries, etc.) are found on a system, even inside of compressed archives. This includes checking for unrecognized or altered versions of software by comparing file hash values (attackers often utilize altered versions of known software to perpetrate attacks, and file hash comparisons will reveal the compromised software components).	Quick win
CSC 2-4	Deploy software inventory tools throughout the organization covering each of the operating system types in use, including servers, workstations, and laptops. The software inventory system should track the version of the underlying operating system as well as the applications installed on it. Furthermore, the tool should record not only the type of software installed on each system, but also its version number and patch level.	Visibility/ Attribution
CSC 2-5	The software inventory systems have to be integrated with the hardware asset inventory so that all devices and associated software are tracked from a single	Visibility/ Attribution

ID#	Description	Category
	location.	
CSC 2-6	Dangerous file types (e.g. .exe, .zip, .msi) should be closely monitored and/or blocked.	Configuration/Hygiene
CSC 2-7	Virtual machines and/or air-gapped systems should be used to isolate and run applications that are required for business operations but based on higher risk should not be installed within a networked environment.	Advanced
CSC 2-8	Configure client workstations with non-persistent, virtualized operating environments that can be quickly and easily restored to a trusted snapshot on a periodic basis.	Advanced
CSC 2-9	Deploy software that only provides signed software ID tags. A software identification tag is an XML file that is installed alongside software and uniquely identifies the software, providing data for software inventory and asset management.	Advanced

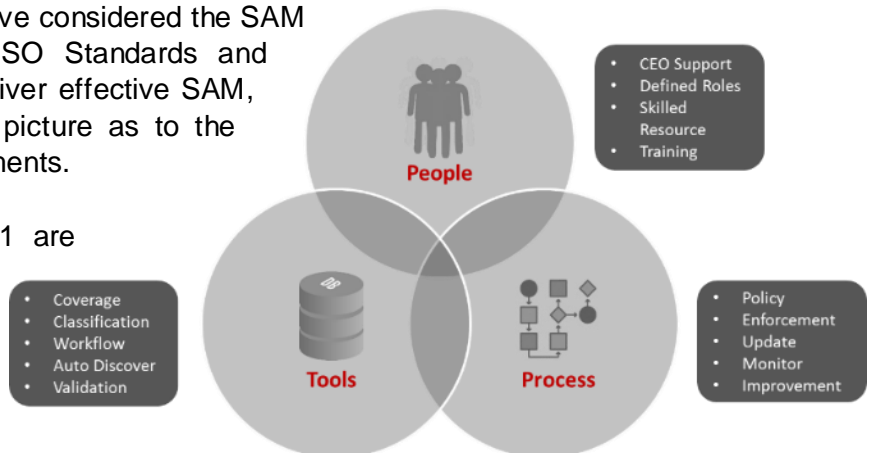
For further details on ISO/IEC 27001 ISMS please visit: www.iso.org

Whichever you lead with, achieving the outcomes will definitely benefit the other and drive good corporate governance across the organisation.

What do you Actually Require?

Once you and your organisation have considered the SAM Journey and understood which ISO Standards and processes are required to help deliver effective SAM, you should have a much clearer picture as to the current situation, gaps and requirements.

Both ISO/IEC 19770-1 and 27001 are explicit in that you must be able to discover, measure and control your hardware and software assets but the way in which this is achieved can differ in each organisation.



The key is to fully recognise the other elements required to deliver effective SAM. The diagram above is taken from LMOs Whitepaper: The Trinity of ITAM Success and highlights People and Processes are as important as the tools used.

Download our “Trinity of ITAM Success” Whitepaper

www.lmold.com/itam-whitepaper/

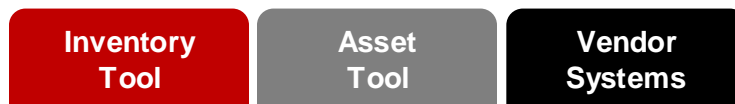


SAM Tools

However, what still remains a fairly common occurrence is that organisations believe a new SAM tool alone will deliver effective SAM.

As highlighted earlier in this document, the procurement of SAM tools to deliver a programme should only be completed once you have scoped out your specific requirements. This includes, identifying the people who will be ambassadors for the programme as well as those who will implement it, and have mapped out the business processes that will be required to ensure ongoing adherence to the programme.

It is typical for an organisation to deploy the following three different tools, however this is dependent on the size of the organisation and how sophisticated they need their SAM programme to be.



When choosing which tools to implement it is important to keep in mind three important factors:

- 1) **There is no magic bullet:** Every tool on the market does a great job of something, however there is no one-size-fits-all solution. This is why it is important to start with your requirements, the assets you need to manage, your budget etc. in order to choose the right tools for the job.
- 2) **Configure the tools correctly:** Tools require significant amounts of information to be effective. If they are not configured correctly with the right information, then they are as good as useless.

Many organisations fail to factor in implementation costs when budgeting for an SAM tool, so they inevitably attempt to configure the tool themselves. Unfortunately, the vast majority of the information required by an SAM tool is meaningless to most people except those who are trained in the nuances of SAM. Leave the configuration to the experts.
- 3) **Use the tools:** In LMO's experience, in 9 cases out of ten, the reason why a tool was not delivering as promised was down to the fact it simply was not being used as it should have been. If you are going to invest the money in a tool, be sure to invest the time as well.

The process of selecting the right tool(s) can be complicated so take your time and if you have limited experience in this area, seriously consider using an independent third party that has no affiliation to a particular tool provider, otherwise you risk being subject to a biased view.





Skills & Knowledge

Understanding if you have the right skills & knowledge is vitally important when considering what your organisation is capable of in relation to planning, implementing and managing an effective SAM programme. It mustn't be underestimated that the structure of agreements and licensing can be an extremely complex area. To illustrate this, here a couple of scenarios and questions to consider:

Scenario 1

Your organisation (2,500 active staff) uses Microsoft SQL 2012 Standard (managed through V-Sphere) across 4 physical and 24 virtual servers, which are all on your premises. You have structured it like this for load balancing and also to provide a development environment for your 4 developers, that each has a Visual Studio with MSDN subscription.

You also have a disaster recovery site, managed by a third party, that has mirrored, passive servers. At the last anniversary of your Microsoft Select Plus Agreement, which was 1 year ago, Software Assurance wasn't renewed.

Question 1

What do you need to take into consideration to ensure you are licensed correctly?

Scenario 2

You use Microsoft SCCM to deploy and manage software on your estate. On a quarterly basis you use SCCM to provide an inventory of deployed software. During this process you notice both user and device counts never seem to tie up with your Active Directory.

Question 2

What can cause this and what would you recommend to ensure you can demonstrate the number of devices and users on your network and using your software are robust?

For SAM to be successful it must become engrained within the organisation. The tools must be used by people who are sufficiently trained to do so, and processes must be put in place to ensure they are used continuously as a matter-of-course and not as a "task to do when you haven't done SAM for a while."

In addition, to ensure you obtain the greatest value, your experts need to possess a thorough understanding of the contractual agreements, software licensing and usage rights of the software deployed and used on your environment; across all vendors.

To be able to do this effectively, an appreciation of desktop, mobile and server hardware is very much an advantage, along with an understanding of IT infrastructure and how cloud integration could affect your organisation's needs.

Insourcing/Outsourcing Pros and Cons

The situation faced by many organisations that choose to manage SAM internally, is one of continuous challenges such as; having the appropriate budget, finding skilled resource; maintaining the knowledge base and staff retention.

So why not outsource SAM?

As with many questions, there's no right or wrong answer, it depends upon your organisation and its needs.

Below is a table highlighting various pro's and con's for both Insourcing and Outsourcing. It's not an exhaustive list but it does highlight key areas for consideration. It is advisable to consider these in conjunction with the section on Cost Implications, to provide a balanced view.

Insourcing		Outsourcing	
Pros	Cons	Pros	Cons
Your people have a greater knowledge of how your organisation works	Your people can get tied into internal bureaucracy	SLAs in place so partner has to deliver as agreed	You may be one of many so lose priority to larger clients
Staff buy into organisational culture and ethos	SAM team could get involved in other activity	Multi-vendor licensing experts	Complacency can cause deterioration in service
SAM team dedicated to deliver	Staff absences can affect performance	Competitive market providing choice	License position remains your responsibility
Fully responsible	Staff retention and replacement can be an issue	Costs negotiable	Reliance on third party
Ability to manage fully integrated processes	Finding the right people	Can advise on vendor agreements	Costly to migrate in-house should need arise
Build skills and knowledge	Staff can be costly	SAM tool inclusive in managed service	Become reliant on partner
	SAM tool required	Can provide assistance on data gathering for inventory purposes	Don't understand business requirements
	Lack of adoption of internal processes		
	Lack of time and monitoring		

Cost Implications

There are infinite scenarios upon which to calculate costs, as they can differ across each organisation, however the examples below provide a good benchmark from which to build a more accurate illustration for your business. And remember, the weight of an organisation's investment in SAM needs to include intangible aspects of SAM, the people and process, not just the tools.

In the scenarios below, the costs are based on a 'reasonable test' but costs will differ from country to country, region to region and vendor to vendor.

In relation to SAM tools, the tables show on-going support & maintenance costs, with anticipated initial license and set-up costs highlighted separately as they are only applicable in year one but obviously must be considered. Vendors' pricing will vary greatly and for some tools could be significantly more than shown below.

Scenario 1 – Medium Sized Organisation

Criteria	Insourced	Cost p.a.	Outsourced	Cost p.a.
	Requirements		Requirements	
5,000 Devices 90% Microsoft	SAM Manager	£60,000	1-year agreement	£70,000
	Data Analyst	£40,000	Internal Account Management	£2,000
	License Administrator	£40,000		
	Tax & Benefits	£35,000		
	Training	£2,000		
	SAM Tool Maintenance	£10,000		
	Total Cost	£177,000	Total Cost	£72,000

Note: SAM tool initial license and set-up costs £50,000



Scenario 2 – Large Organisation

Criteria	Insourced		Outsourced	
	Requirements	Cost p.a.	Requirements	Cost p.a.
100,000 Devices	SAM Manager	£90,000	1-year agreement	£500,000
80% Microsoft	Technical Manager	£60,000	Internal Account Management	£20,000
10% Oracle	Data Analyst	£60,000		
	Senior License Specialist	£90,000		
	License Administrator x2	£100,000		
	Tax & Benefits	£100,000		
	Training	£10,000		
	SAM Tool Maintenance	£50,000		
	Total Cost	£560,000	Total Cost	£520,000

Note: SAM tool initial license and set-up costs £500,000

Finding the Right Staff or Partner

Finding the right staff or SAM partner can be challenging; below are points to consider, which may help with your ultimate decision.

Staff

Finding and keeping the right people is difficult in the normal course of business but when you add in the need for experience and specialist knowledge, the task becomes increasingly more difficult. Here a few questions worth asking yourself:

- What resource pool is available to you in terms of knowledge and expertise?
- How attractive is your organisation to work for versus the competition, based upon independent research (e.g. top companies to work for in your area)?
- Are your base salaries competitive?
- What additional benefits do you offer?
- What sort of a training programme do you have in place for new and existing staff?
- Can you train inexperienced staff to deliver to your requirements?
- Do you have the right budget?
- What progression opportunities can your organisation offer?

Many of the questions above relate to good business practice and are not specifically related to SAM, however, trying to attract skilled SAM resource means your organisation needs to stand out to attract the right people who can deliver effectively.

Remember, getting SAM wrong can be very costly!

Partner

With a plethora of SAM providers in the market, taking an independent view and ensuring you undertake the right amount of due diligence are important aspects in choosing well.

Assuming you have undertaken a full review and understand what your organisational requirements are, here are some questions to ask prospective SAM partners:

- **What does your managed service include?**
Need to be explicit as your expectations may differ, especially as some services are classed as 'add-ons' so initial cost can be misleading.
- **Which other companies do you work for?**
Look for past and present to show a proven track record.
- **What percentage of their business will you represent?**
Will give you a feel for how important you will be as a client.
- **What SAM tools do you use and why?**
Some providers still use spreadsheets, which can be more prone to human error.
- **Are you an authorised reseller for any of the tools you use?**
More important if you're buying a tool for your own use but worth noting to help when comparing costs, as the partners' costs for using a particular tool will be passed on to you.
- **How many license experts do you employ directly?**
- **Do you use contactors to help deliver your service, if so how many?**
Can be a benefit providing they are of the right quality.

The process of choosing well can be complicated so take your time and if you have limited experience in this area, seriously consider using an independent third party to help. A good consultancy will be able to assist and guide you throughout your SAM journey, including being an objective party when going through a tender process to choose a SAM partner or partners.

Note: it's worth visiting prospective partners at their premises so you can meet the people who will deliver your service and get a real feel for how the business works.

So which is Best, Insourcing or Outsourcing?

That's up to you but factors outside your control may heavily influence or even dictate the outcome so as with many decisions, you may need to 'cut your cloth' accordingly to achieve a solution that delivers effective SAM for your organisation.

Only by understanding your organisation's needs, knowing what is achievable and then objectively considering your options, will you be able to make an informed decision.

Contact Us

Speak to one of our licencing experts today:

 **+44 1904 567 997**

 <http://www.lmoconsultancy.com/contact-us/>