
Software Licensing and Subscription

Options proliferate internally and in the cloud, but challenges abound!

Tony Lock, August 2011

Results from a survey highlight that organisations are faced with a wide range of license models for the software they deploy in their business operations. The advent of 'cloud' options for the delivery of some services is further adding to the mix, but one constant remains. There is perceived to be insufficient flexibility available in the majority of software licensing models and this appears to be inhibiting organisations as they seek to implement business requests more rapidly.

KEY FINDINGS

Few organisations know what software they are using

The vast majority of organisations have only partial knowledge of the software that is deployed in their organisations. A significant proportion have no monitoring tools in place capable of auditing what software is deployed, and even fewer have accurate information on what is actively in use. The result is significant operational risk and overspend.

The proliferation of licensing mechanisms is aggravating the problem

User, server, processor, site, enterprise and a number of other commercial licensing schemes are in common use, with organisations large and small often managing a complex mix of arrangements. We then have open source licences which may or may not be used under subscription/support contracts. Pretty much every license type known to man or vendor is used to some extent.

Use of Software as a Service (SaaS) is rising, but beware contract inflexibility

While utility SaaS offerings such as hosted email are used the most, there is evidence of SaaS starting to be adopted for both core and departmental application needs. While this delivery option is still in the early stages of market acceptance, it looks set to take its place in the mainstream. Many, however, report that SaaS is not always as flexible as providers would have us believe.

Many licences and subscriptions are based on the 'ratchet' principle of commitment

On site or in the cloud, most commercial software arrangements appear to scale only one way – up. Reducing commitment is too often costly, difficult or even impossible. This artificial restriction on flexibility is perceived to exist purely to the benefit of suppliers, and potentially stands in the way of dynamic cloud based models being used to deal with fluctuating demands.

CONCLUSION

Based on the results of this study, it is clear that many organisations need to get better at managing their software assets and subscription arrangements, while suppliers must stop dragging their feet on providing the flexibility needed to support the promise of cloud computing. In the meantime, contract due diligence is as important as evaluating functional fit, security, manageability, cost and other aspects of solutions and services when making software or SaaS related decisions.

The study upon which this report is based was independently designed, interpreted and reported by Freeform Dynamics and executed in collaboration with The Register news site. Feedback was gathered via an online survey of 180 IT and business professionals from the UK, USA and other geographies. The study was sponsored by Microsoft.



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Introduction

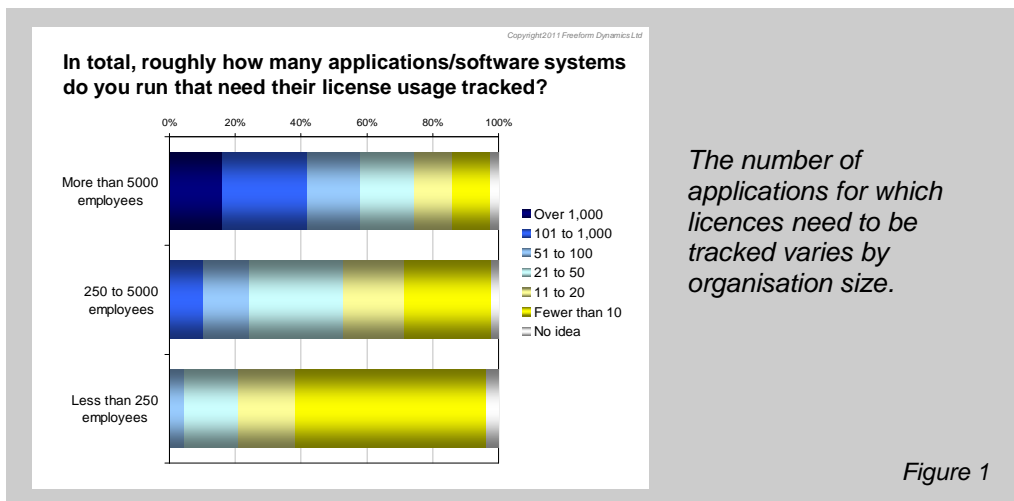
Almost since the first day of the commercial use of IT, systems administrators have been faced with the challenge of managing their software licenses effectively, and without putting the organisation at risk of breaching any agreements with software vendors. Over the years, this challenge has become more complex as organisations have added more servers and very large numbers of personal computers. This situation is now being further stressed as new devices, especially those owned by users themselves rather than directly by the company, such as tablets and smart phones, enter mainstream usage, bringing with them an expanding portfolio of applications. The addition of 'cloud' and 'hybrid cloud' usage options will complicate things even further.

There are many reasons why organisations need to keep track of their usage of software. First and foremost managing software assets effectively holds the potential to save money, as well as reducing the risk exposure of the business. The ability to ensure license compliance whilst not overbuying licenses, especially at a time when 'cloud' and 'on demand' computing are being investigated, can bring clear financial rewards.

The fact is, every organisation undertakes these tasks in some fashion or another. If the organisation has not deployed appropriate IT asset management or software auditing solutions, the likelihood is that brute force staff resources will be used to try to keep a handle on software licenses. This approach nearly always yields incomplete, possibly totally erroneous, data with a result that IT costs are anything but optimised, coupled with the additional risk of leaving the company's integrity and brand/reputation exposed.

How big is the problem?

As has been mentioned, experience and survey results show that many struggle to get to grips with license management. The sheer number and complexity of license schemes makes understanding them particularly hard. The scale of the challenge faced by organisations to keep track of their software usage is illustrated in Figure 1.

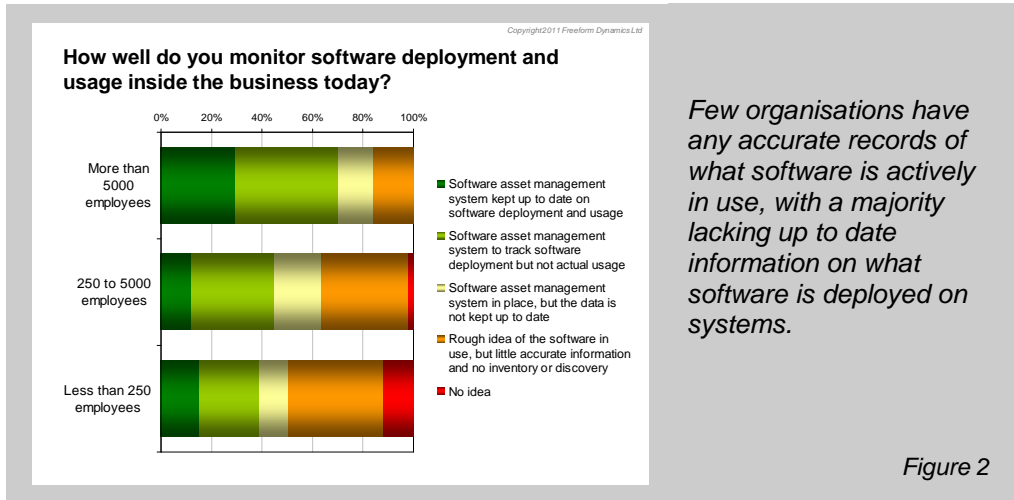


As would be expected, there is a clear link between the size of an organisation and the number of applications with licenses that need to be tracked. It is interesting to note, however, that a very large proportion of businesses overall state they have fewer than fifty applications whose usage they need to track. More than half have twenty licenses or fewer requiring license usage monitoring.

Such numbers might on the surface suggest that accurately tracking software should be possible, with even simple discovery tools. One thing to bear in mind, however, is that managing license complexity is not only a matter of how many licenses are involved. Rather it is a product of the number of licences compounded by the number of instances of the software that are deployed. Thus tracking a small number of licenses deployed on a low number of servers is relatively straight forward. But tracking a few licenses deployed on a large number of devices, PCs, laptops etc., or on

platforms where usage changes rapidly, as in new dynamically virtualised platforms (and ultimately private cloud), makes the task considerably more challenging.

Thus it is interesting that a relatively small proportion of organisations, fewer than one in five overall, said they were making use of asset management tools to track the usage of software in the business. Conversely, more than half have no idea about software usage, have little accurate information, or have an asset tracking tool that is not kept up to date. The situation varies by organisation size, but significant gaps are evident at every level (Figure 2).



This is not comforting from a financial management perspective, with even small businesses that have only a relatively limited set of licenses to track not maintaining effective control over their software assets. And from a risk point of view, unless the software deployed is tracked accurately, how can any organisation be certain that there aren't applications in use that are unlicensed or do not meet corporate requirements for security, compliance or functionality? Software discovery is thus very important if the company is to operate safely and securely but also if support and software usage costs are to be optimised.

It is interesting to speculate on why organisations have such limited accuracy of data on their use of software, especially given that discovery tools are now pretty robust and generate fairly good records of software deployed. More sophisticated offerings can also track usage. We know from much of the research we have carried out over recent years that many organisations find it difficult to make a business case for any systems management solutions, something that certainly needs to be addressed.

But with respect to software license management, the lack of accurate information might be down to people simply not recognising the cost benefits achievable through better software asset tracking. In addition it is possible that many business users do not appreciate the serious legal exposure they face when licenses are not administered effectively, especially as many regard the use or copying of any software and data, be it business applications, games, music or film files, to be perfectly acceptable behaviour without thinking about copyrights and licenses.

Software license flexibility and emerging cloud delivery models

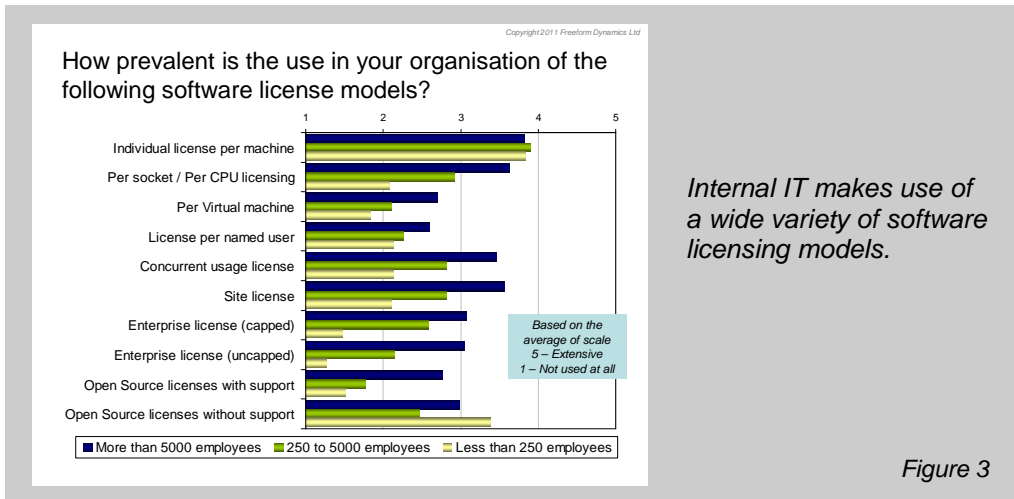
Organisations only run software in order to do something the business requires. Many of the applications and services they run are relatively constant in terms of the number of software licenses required, but some systems may have considerable variability in their demands, and hence in the number of software licenses needed.

Traditionally, most commercial software systems have required the acquisition of licenses, whilst even open source offerings may necessitate some form of support contract to be in place for systems. Running software with licenses that are fixed or which offer limited flexibility or ability to scale rapidly, up and down, is suitable for constant workloads but is less than ideal for systems with any significant degree of usage variability.

It is therefore interesting to consider if organisations perceive new 'cloud' delivery models as providing greater degrees of flexibility to help them meet changing business requirements compared to traditional software licenses, whether in the form of so called 'Private Cloud' or external 'Software as a Service' (SaaS). After all, the flexibility of cloud is aggressively promoted by vendors as being one of the great advantages of the approach, with solutions and services clearly designed to handle variable workloads. But what do people in the real world think?

The impact of software licensing models on internal IT flexibility

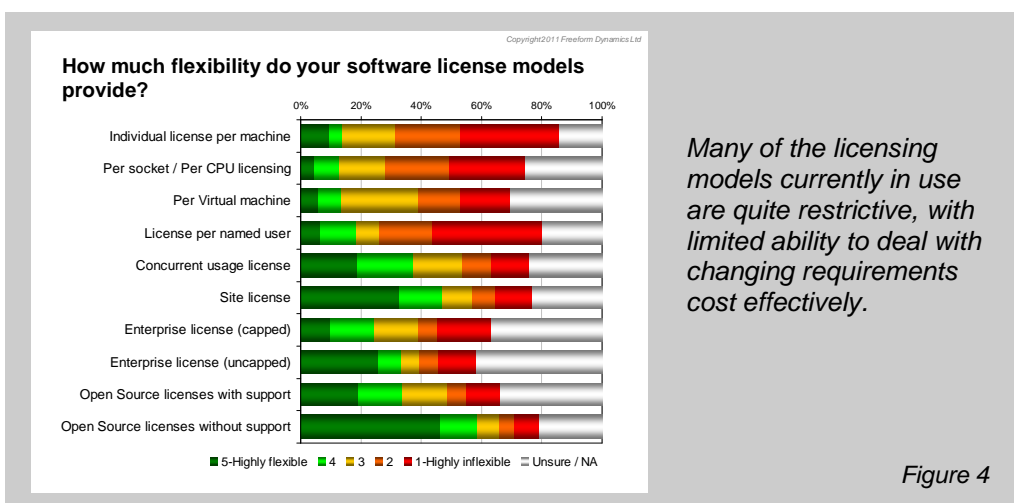
Starting with in house systems, organisations make use of an extensive array of licensing model types at the moment (Figure 3).



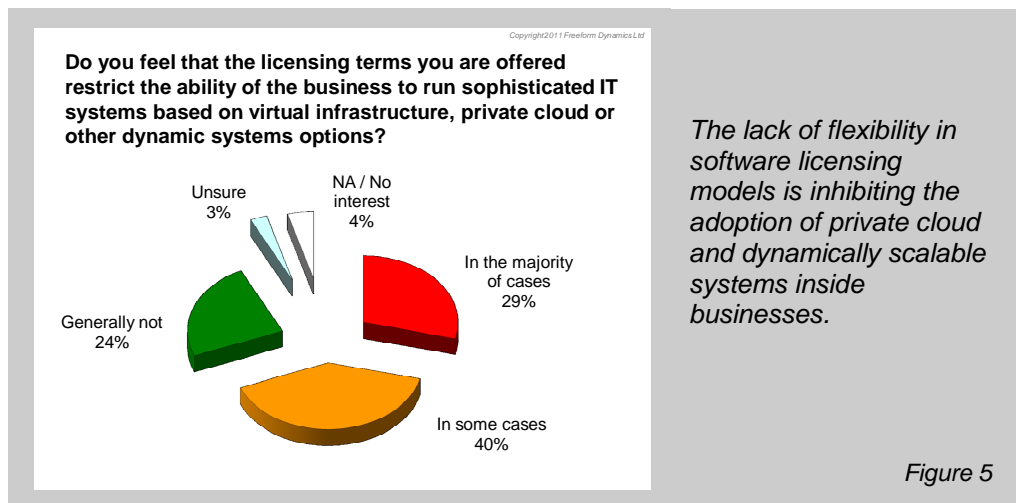
As we can see, even small and mid-sized organisations often have to deal with a range of different licensing models, even if some are only applied to one or two applications.

Each model type comes complete with its unique idiosyncrasies, and within each one, software vendors often use different terminology to set out how the software must be licensed and its conditions for making alterations. This very complexity is at the heart of why organisations still find the management of software licenses difficult, even when there are good software inventory discovery and usage tools available.

As we start to think about more dynamic virtual and private cloud delivery, it is notable that apart from open source and site/enterprise models, few of the software licensing approaches common in business use are perceived to provide much in the way of flexibility (Figure 4).



This lack of flexibility is understandably viewed as a major inhibitor as organisations consider dynamically variable cloud-like architectures to deal with fluctuating business demands (Figure 5).



Whilst additional challenges to the adoption of more cost-efficient 'private cloud' type systems exist, not least the state of management tools and the very way internal IT systems are funded, it is clear that software vendors will need to adapt license models considerably as demand continues to develop for more dynamic approaches to internal IT service delivery. Indeed some of our respondents summarised things quite nicely with their comments, such as:

"[Suppliers need to] clarify and simplify licensing options, not introduce incomprehensible systems that require dedicated knowledge to decode"

"Apply more modern thinking: I appreciate they want to make their money and fair play to them, but when their licence terms make use of the software a certain way literally impossible, or prohibitively expensive, then that doesn't help us or them."

Even open source is not immune, as one respondent made the case:

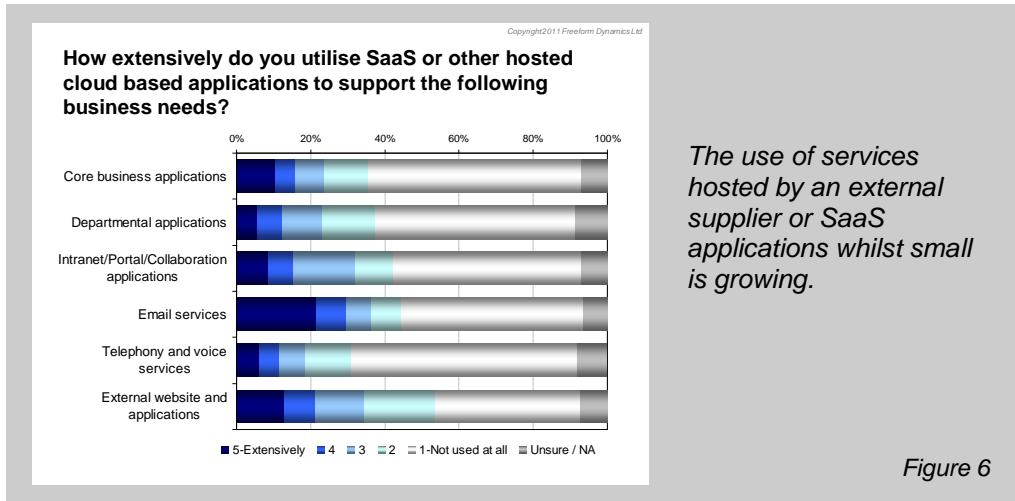
"Open source licenses that insist on the organisation taking support on all possible servers where an application might function, even if the company only wishes to run it on three devices."

While there is obviously work to be done with regard to the licensing of software deployed in a more flexible manner on the customer's site, the other aspect of cloud is the proliferation of hosted services now on offer in the marketplace. This leads us from licenses to subscription agreements.

Hosted cloud services and contract flexibility

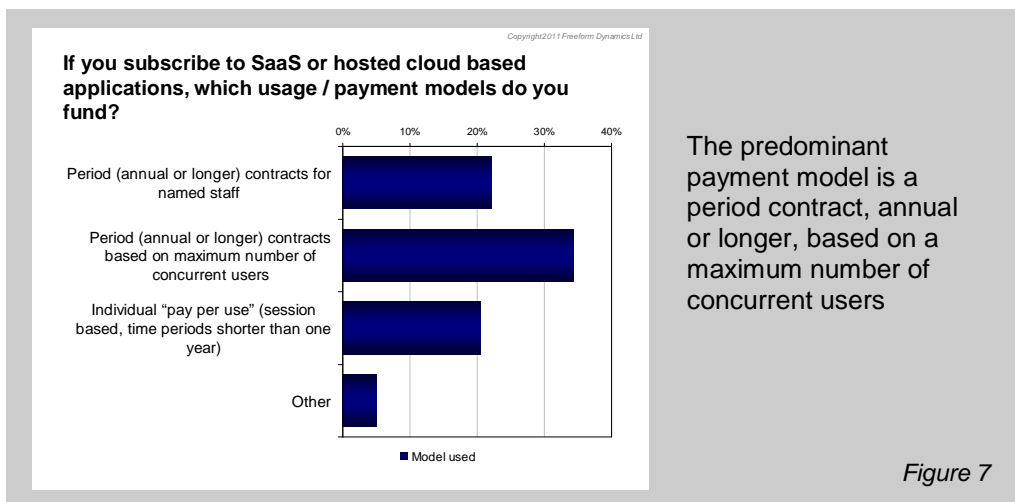
During our study, we looked specifically at Software as a Service (SaaS) and picked up usage of this model across a number of different application types (Figure 6).

It should be noted at this stage that the methodology used in our study means the data we are looking at here will be somewhat skewed. Online surveys are subject to the principle of 'self-selection', in this case meaning those with an interest in or knowledge of cloud computing are more likely to have participated. While the numbers quoted should therefore not be taken as an accurate representation of absolute market penetration, none of this hampers the kind of analysis we are outlining in this report, which is based on relative levels of activity and patterns of behaviour.



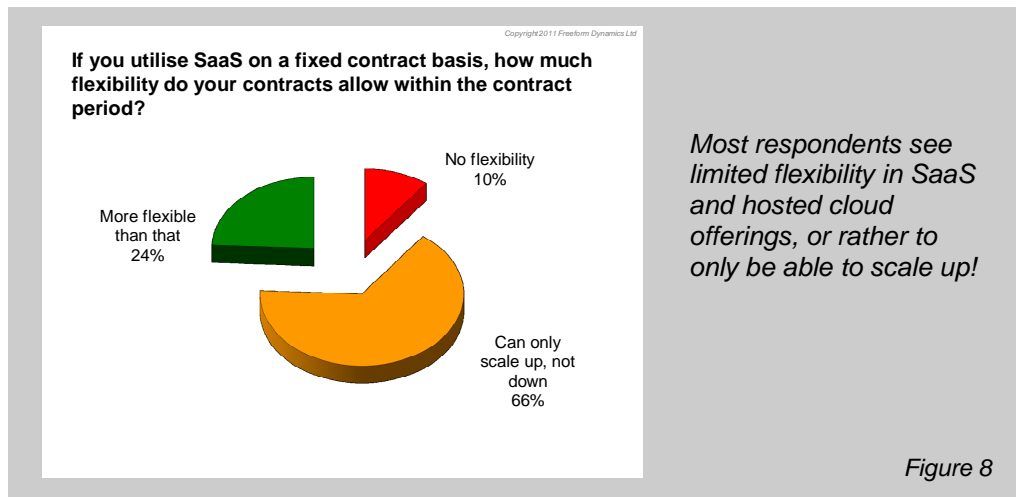
We can see, for example, that activity around email is more solid than other categories. This makes sense because organisations are likely to switch to hosted email on a broad basis, whereas in other areas they are likely to move one application (and even one part of the business) at a time.

Looking at how SaaS services are paid for, the predominant payment models involve a period contract, annual or longer, based on a maximum number of concurrent or named users (Figure 7).

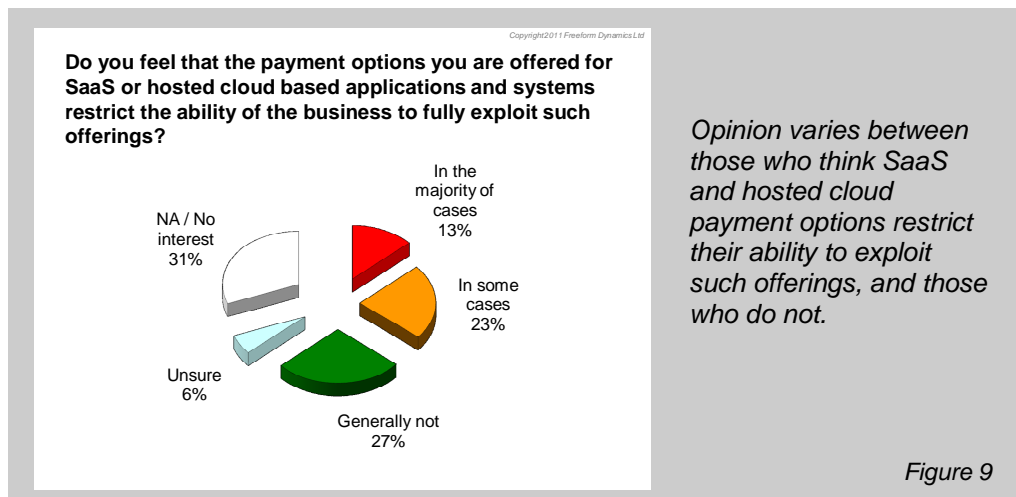


Individual 'pay per use' models are also fairly commonly used amongst those utilising hosted or SaaS services, although other work we have carried out indicates that this approach is not usually associated with front line applications but more often with testing or evaluation.

But what about flexibility? We have already discussed that many organisations find the license conditions on the software they manage internally to limit their ability to change. Most such licenses are related to some measureable 'object', be it a user, server, core, site or even enterprise. One of the promoted attractions of cloud is taken to be its flexibility and ability to respond rapidly to user requests. Such a model has the potential to be much more closely aligned with business need and usage (and therefore 'value') than traditional perpetual licenses. But do the organisations using SaaS think they have much scope to adjust their level of usage easily? When we take the most popular model from Figure 7, our study suggests not (Figure 8).



Many organisations perceive SaaS models to be far from perfect, with flexibility seen to be a one way street, namely upwards at a cost. Few see payment models for such services that allow usage to scale down, either with or without charge. When asked if payment options for SaaS are restricting the ability of organisations to exploit such offerings, about 6 in 10 respondents who had an opinion said they were, to one degree or another (Figure 9).



This picture probably hides issues to come for some organisations. It's early days for most SaaS adopters and they are likely to still be working to their initial deployment plans. The first time they have occasion to make significant adjustments, particularly if they want to scale back their usage, many are likely to get a shock as they are told by the provider that their current contract will not permit the desired change. This comment from one respondent sums up the danger:

"They promote 'flexibility' but only supply a way to pay more, not less. We have to cancel the contract and start again to scale down."

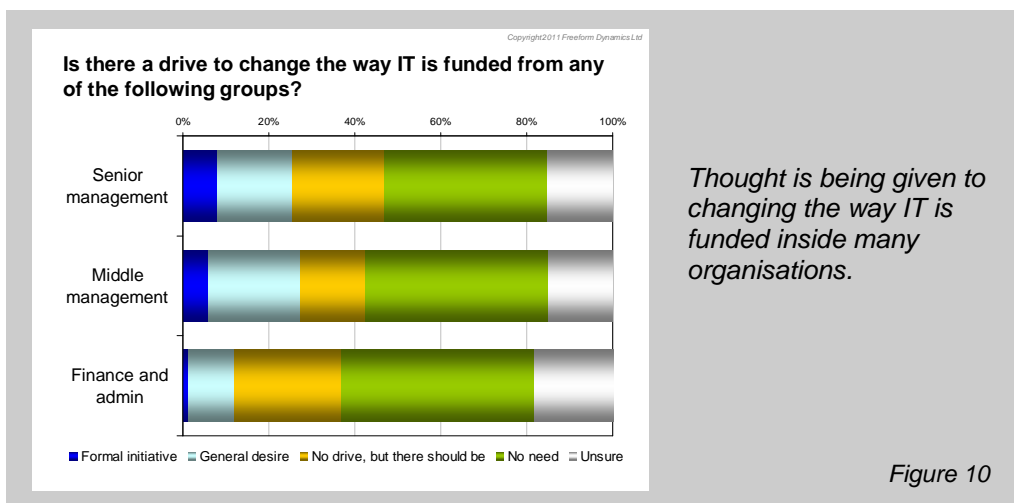
From looking around the market, commercial arrangements for SaaS services are indeed often based on the 'ratchet' subscription approach, so as much attention needs to be paid to contract terms as other aspects of due diligence, especially if future needs are uncertain or likely to fluctuate over time.

With the majority of SaaS and hosted cloud services being built with a large degree of self-provisioning in mind and the technical wherewithal to change user scope easily, it is difficult to see how limitations on flexibility downwards can be anything other than an attempt to limit loss of revenues. The only alternative explanation for this perception of limited scope to change down is if users have not understood what they can do. But the user's comment above shows very clearly that this is not the case.

'Cloud' and the funding of IT services

We know that in roughly two thirds of organisations today IT is funded using models whereby budgets are fixed in advance. In other enterprises funding models vary between payments per user per year or payments per user per service per year, although few of these make use of accurate resource usage/cost of service delivery calculations. The big question is, as organisations increasingly adopt dynamic virtualised infrastructure that is not easily allocated to departmental cost centres, and make more use of cloud services that are essentially an operational rather than capital expense, does the way IT is budgeted and accounted for need to change?

With this in mind, our study is quite revealing as it indicates that whilst there are few formal initiatives in place to consider changing the way IT is funded, there is a degree of interest from different groups across the business. It is equally revealing to see that although many respondents see no need to alter IT funding models, a sizeable number recognise that despite there being no drive for change by business stakeholders, there should be (Figure 10).



This finding is particularly interesting when we remember that the majority of respondents taking part in the survey work in IT, thus illustrating that many IT professionals recognise that the way IT is paid for should not be regarded as set in stone.

The future of licensing

The results of this study, coupled with considerable amounts of research we have undertaken in the last few years, highlights that the entire area of software licensing, whether internal within the enterprise, using external 'cloud' services or a hybrid combination of both, is ripe for significant change. For businesses to best exploit the advantages of flexible IT resources change is needed in both the licensing models provided by software suppliers and in the way in which organisations manage their software assets.

The growing importance of Software Asset Management

As was stated at the beginning of the report, managing software assets is a task that must be undertaken by every organisation, if only to ensure that license terms and conditions are not broken and the organisation uses software legally. But it is also apparent that managing software assets effectively not only ensures compliance but offers many organisations the opportunity to reduce costs.

We know, both from this survey and extensive research we have carried out over the past couple of years, that few organisations have appropriate systems and processes in place to help them discover and proactively manage the software they have running inside their organisations. The tools available today to audit software installed on systems inside the business and to record the usage of applications has improved considerably in recent times making the tasks far less onerous.

The increasing use by businesses of SaaS and Cloud applications and services adds even greater pressure to ensure they have effective processes in place to manage software asset management, from a cost, efficiency and compliance / governance perspective. Users can access SaaS applications and services, along with other cloud solutions, in a relatively straightforward and quick fashion. Indeed, so simple is it to get access to such systems that they may even be utilised without IT being aware and with little or no governance oversight.

This means that users can, without much difficulty, begin to use applications or services that may replicate others already available inside the company thereby adding unnecessary cost to the business. It is even possible that the service might contravene security or other governance factors making its use potentially damaging to the company. Only with the use of effective software asset management processes and support tools can the organisation be certain that only suitably secure and authorised applications and services, be they internally run or cloud based, are used within the enterprise, thereby avoiding risk, cost and publicity related problems.

Software flexibility in a changing IT world

This report highlights that organisations today see the management of the software licenses they use to be complex, time consuming and very difficult to operate. Perhaps even more to the point, the majority also consider the commercial models available, both internally and from SaaS / cloud providers, to be lacking in the flexibility they need to allow them to use IT dynamically and respond in a timely manner to fluctuating business needs and wants. As enterprises seek to better utilise their IT resources the requirement for such flexibility will move from being a “nice to have” capability to an imperative.

The desire for licensing models that are simple to use and which do not impose large costs or other inhibitors to change is likely to grow rapidly as IT systems become simpler to manage to match varying workloads. At the same time, it is clear that cloud services and SaaS offerings are seen to hold the potential to meet certain business needs but, once again, the licensing models in place are perceived to limit their usefulness, especially in terms of scaling down usage. Such sales models are counterproductive and are slowing take up of certain services.

As hybrid usage models become more entrenched allowing organisations to utilise internal and external systems in routine operations, we are likely to see organisations searching for vendors who understand such usage behaviour. It will therefore become likely that software vendors whose software licensing models cater cost-effectively for hybrid operations will stand out from the crowd and prove attractive to enterprises who value flexibility without administrative or financial pain.

Discussion and Conclusion

Software licensing is complex and is regarded as a burden by the vast majority of organisations, and this applies across the board. Perhaps more worrying is the fact that a comparatively low proportion of organisations are reporting they monitor software usage well. There is a clear call to action for those that have failed to invest adequately in their monitoring and management infrastructure, and accompanying policies and procedures.

But the challenges are compounded when we consider the large numbers of organisations who feel themselves constrained by license limitations in both on site and cloud based platforms. There is therefore another call to action for those software providers that are obviously putting their own interests way ahead of their customers’ when it comes to payment models and contract terms. A more empathic stance needs to be adopted, and we anticipate this issue to become a matter of competitive differentiation in the future.

To reinforce how much customers get upset with one sided arrangements, here is a comment from a disgruntled respondent that sums up how many others obviously feel:

“No specific examples, but the bit that sticks in my throat are the contract terms where we (SME) are supposed to indemnify them (usually overseas megacorp) against world + dog in every circumstance imaginable and their responsibility to us is zero”.

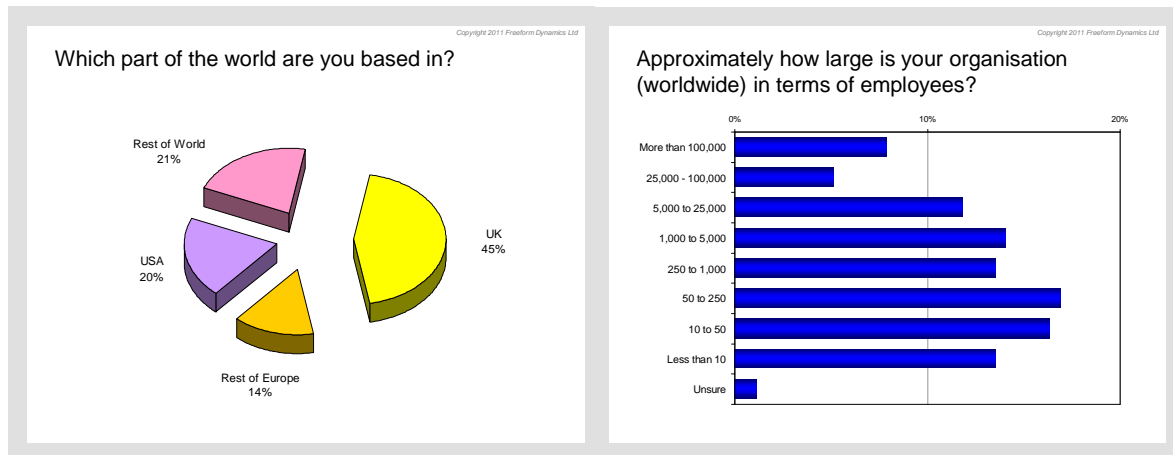
When this attitude is anything but uncommon, software solution providers, traditional and cloud, clearly have work to do on the terms they offer to make things simple and restore any sense that software suppliers are there for customers rather than only interested in profit.

The visions of a dynamic and flexible world that are painted through marketing literature and sales presentations will only come to fruition if both customer and supplier interests are properly aligned.

Appendix: Study Sample

Feedback was gathered via an online questionnaire published on The Register news and information site (www.theregister.com). The respondents, totalling 180, were largely IT professionals representing a good cross section of job functions and working in a range of different industry sectors. The majority of respondents were based in the UK or the USA, whilst they work in organisations across a wide range of size tiers.

The sample distribution was as follows:



A note on methodology

The web survey approach used in this study is subject to the 'self-selection' principle, which basically means that people with a greater knowledge of or interest in the area of software licensing and software asset management are more likely to have taken part. The end result is a sample bias, which in this case means that the results presented are likely to be skewed towards organisations that are more advanced or progressive when it comes to the administration of their software licensing.

Such self-selection does not undermine the analysis we have presented here as we have focused on the relative emphasis of different perceptions and types of activity. Indeed, in fast moving areas it is often useful to investigate the views and behaviour of those that are ahead of the curve. It does, however, mean that it would be inappropriate to regard any of the statistics we have used as a representation of the absolute level of need or activity across the business community as a whole.

Acknowledgements

The study was completed in June 2011, and we would like to take this opportunity to thank all of those who took the time to participate. Your help is very much appreciated.

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