THE BUSINESS SIDE OF SOFTWARE LICENSING

Although licensing models have evolved with technology innovations, they do not fully satisfy the business issues faced by today's enterprises. The focus of successful licensing and support has to extend beyond cost and technology issues, the goal is to achieve software licensing based on business objectives balancing customer needs and vendor business models.

SmartLM Project White Paper

About the SmartLM project

About The 451 Group

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About the author

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SOFTWARE IN BUSINESS

Software plays a critical role in business. Traditional software licensing models are under pressure as they do not satisfy the changing business needs of today's enterprises. Enterprise IT infrastructure is evolving towards hybrid models which harness in-house and third party resources (cloud, managed services, co-location). However, licenses are usually bound to hardware rather than fungible resources and are provided on the basis of named users, hostnames, or as a site license for the same admin domain of an organization. With Clouds notwithstanding, or when it comes to distributed environments and virtualized infrastructures, we run into trouble. Common software licensing terms are often too restrictive or expensive to run databases and applications on virtualized servers. Grids were an important inflection point in the transformation, but the lack of flexibility for running commercial software licenses in Clouds is still a bottleneck.

The software licensing issue is a complex one because transformation is going on at a macro level where a lot of money is involved. What has been happening and what can be expected is an evolution of license models, rather than a revolution. The goal and challenge is to balance customer needs and vendor requirements. In the past, end-user companies which wanted to extend the use of software to grid environments, either paid up or found a workaround. The ability to proactively manage the use of software licenses based on business objectives is not a grid-only issue. Virtualized infrastructures and distributed environments (including the Cloud) call for flexible and non-hardware based license models that support service-oriented business models. Software manufacturers need to change the way licensing works and use flexible and non-hardware based licensing solutions that better fit into a virtual environment.

THE SMARTLM PROJECT

Within the frameworks of the SmartLM project, we have addressed the licensing problem by working on a framework which delivers improved customer choice, but that will also keep the vendors happy. In the first half of 2008 we interviewed 30 companies, both software vendors and software buyers (end users), specifically for SmartLM, and we revised existing reporting in order to see the software licensing market clearly and address the real problems and challenges stakeholders are facing these days.

SOFTWARE LICENSE COMPLIANCE

The software industry employs the ´right to use´ model that ensures that the ownership and control of software usage remains in hands of the vendors. This right to use is granted through a license agreement, resulting in a contractual obligation that can end in a termination of the license if the licensee does not adhere to it.

The first obvious challenge we bump into is software license compliance. When it comes to compliance, we may find three behavioral patterns:

"The Good"- when your IT department knows exactly what software is installed on all systems and there are no concerns about what an audit would uncover.

"The Bad"- when your IT department thinks you are in good shape regarding compliance, they hope there are no renegade applications installed, and they are optimistic that an audit would not bring negative consequences.

"The Ugly"- when your IT department doesn't really have a clear picture of what applications are installed, and they have no idea about what an audit might uncover.

The unfortunate situation is that for most medium-sized organizations, *"the bad"* and *"the ugly"* tend to be the rule of the day when it comes to ensuring accurate software license compliance. Both software vendors and end users face a challenge here: vendors want their intellectual property to be protected and maximize revenue; end users need to easily track and manage the licenses that they are using.

VENDOR AND END-USER ISSUES

Obviously, non-compliance is not the way to go, but let's put this issue aside for a little while and think about what is wrong with licensing in light of emerging IT trends and companies' business drivers. As simple as it sounds and as complicated as it is, what users want is to control their expenses and get more value, while vendors do not vote for a reduction in revenue. While conventional, revenue-based business models are still dominating licensing mechanisms, but it is evident that the market is getting restless, and the demanding for more flexible licensing solutions from customers is growing.

It is clear that the focus of successful licensing and support has to extend beyond cost and technology issues, the goal is to achieve software licensing based on business objectives that balances customer needs and vendor business models. The achievement of a win-win situation between software vendors and users can be seen as the main requirement for a change.

Based on the conversations we had with vendors and users, software licensing is both a technology and a business concern, but the business issues are the most problematic ones. There are a few basic rules that licensing should comply with. We have called these *SmartLR*, SmartLM's Licensing Rules:

I. Licensing must offer reliability.
II. The cost of licensing must be low compared to the value of the license.
III. Users deserve fair conditions and maximum value.
IV. Licensing must offer flexibility to the user.
V. Keep the license model simple.

IT departments look to reduce software costs, as done with hardware and services in the past. Traditional licensing models are under pressure from a variety of alternative options that can tighten vendors´ profit margins and push down software licensing costs. These changes give more negotiating power to users. Customers want flexibility and they want vendors they can partner with. Models supporting distributed and virtualized technologies might vary, but some form of measured usage will likely be employed.

UNDERSTANDING USAGE, MAXIMIZING VALUE

The licensing landscape is quite chaotic with many licensing and pricing models around and providers randomly introducing new ones: node-locked license, flexible single-user license, floating license, score-based or token-based model, perpetual license, per-seat, per-CPU, per-concurrent-user models, pay-per-use and subscription pricing, hybrid license models, custom-contract based models and value-oriented pricing. I guess we all heard or mentioned a few of them in a conversation about software licensing and many times we would be talking about the same things using different words.

We believe that what we can talk about is an evolution of license models, rather than a revolution. ISVs can´t afford a revolution, as licenses are in the books, this way customers could question the value of their current licenses and put pressure on them. Vendors do not vote for a reduction in revenue, however, there must be some additional value to the user, such as being able to move a license around.

The SaaS delivery model has been offering some relief, as for the offered business services, instead of a single (usually) large licensing fee, customers pay recurring subscription fees. This subscription model most typically follows a relatively simple time-based approach (e.g. monthly fee). However, many SaaS providers realize that there is a need for far greater range of subscription models that may also take other factors into account such as usage, specific features and functions, service transactions, advertising funded revenue models, etc. But, it's important to point out that the development of the functional aspects of a SaaS application needs heavy investments on the provider's side.

Open Source is also a very important enrichment of the software world. Open Source is a development and distribution model, it´s attached to the software industry in the same way e-commerce is attached to the retail industry. If users can find an application that suits their needs and does not require a cumbersome license, they will use it. License flexibility seems to be a major driver to Open Source solutions. Software vendors can get a sound competitive edge by

exploiting Open Source strategies, as we are not talking about an ´all or nothing´ issue, hybrid models offer many advantages. Defining the line between what is free and what is paid for, is the critical component of any Open Source strategy. When a product is too niche-oriented, then it is not convenient to make it Open Source. When the software needs to generate its own revenue, dual licensing might be a very good option, and when the purpose of the software is to stimulate other sales, selling services around the software may be a good strategy to go.

To enhance customer satisfaction and value, vendors need to adapt to changes in surrounding technology and offer a wider array of licensing options. The evolution of licensing should move along understanding usage and maximizing value. Traditional licensing represents multiple restrictions, high risk and a lot of 'shelfware' for users and low commitment for vendors. Vendors need to work on offering an improved customer choice (increased value and more flexibility), which at the same time would result in improved customer relationships.

users: more value and flexibility

vendors: improved customer relationships

UNDERSTANDING USAGE

MAXIMIZING VALUE

technology partnerships

- unlimited access

hybrid models – flexible access

pay-per-use and subscription

vendor-client models – variable access

vendor-client models – fixed access

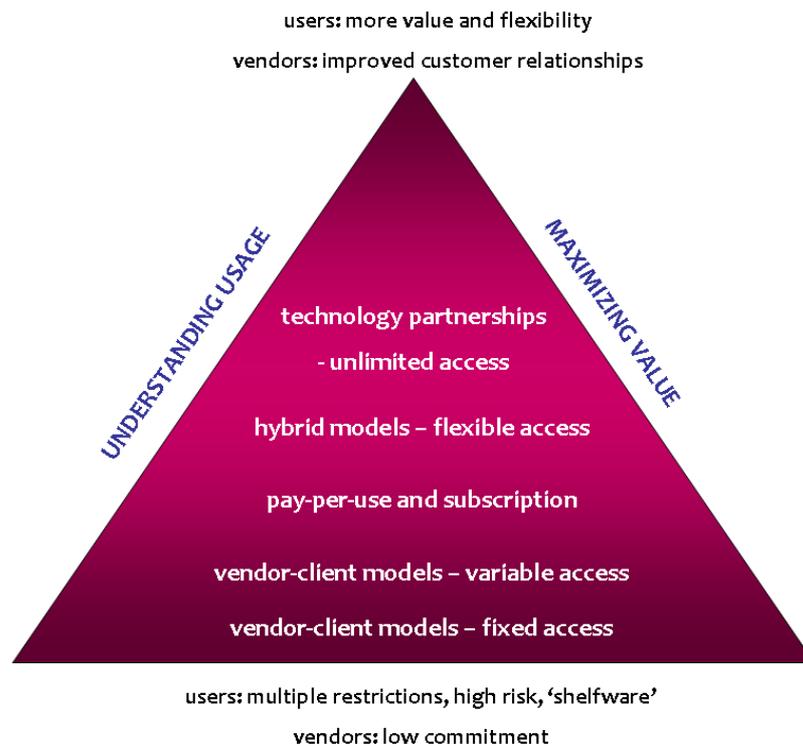users: multiple restrictions, high risk, 'shelfware'

vendors: low commitment

Figure 1: Evolution of software licensing

Although licensing models have evolved with technology innovations (from traditional vendor-client models through pay-per-use and hybrid models to technology partnerships), they do not fully satisfy the business issues faced by enterprises of all kinds and sizes when it comes to balancing productivity and efficiency, adjusting to changing needs or dealing with new requirements.

SERVICE-ORIENTED BUSINESS MODELS

In the SmartLM project, we are developing a flexible licensing virtualization technology which integrates new service-oriented business models. Through close collaboration with a wide range of stakeholders - software vendors, application providers, end users –, we identified some real licensing gaps and have developed new models that would help fill them in.

    'Featuring the ASP' – In this model we find the Application Service Provider (ASP) offering various solutions to various problems. We highlight the following cases:

1) Customer license hosting: the customer owns a license for a specific application and deploys the license in the ASP´s environment. This case also allows for aggregation of licenses.
2) Embedded license: a dependant software vendor (DSV) commercializes its templates through the ASP. This case implies a license dependency to be solved, accounted and billed by the ASP.
3) License redirection: a third party (external consultant) owns a license and deploys the full license or part of it (sub-license) to carry out a specific project for the customer. Proper accounting is needed.
4) License reselling: the ASP resells the ISV's licenses for third-party use. ISVs may prefer to minimize the number of contacts they sell directly to and eventually minimize the risk for non-payments. Also for small software vendors, the ASP makes the access to market easier.
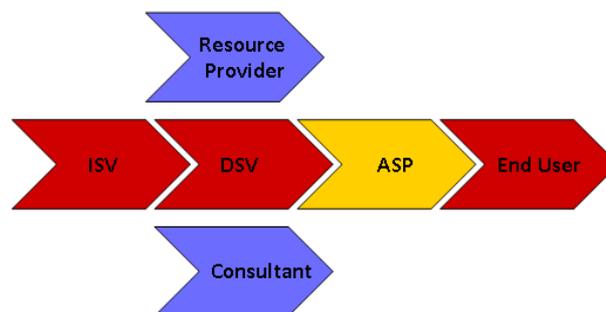

Figure 2: 'Featuring the ASP' business model

As illustrated in the figure above, the ASP plays a central role in all of these cases, being a reseller of hardware, software and services. The introduction of the ASP can be very advantageous for both the ISVs and the end users. From the ISVs' point of view, the ASPs can generate additional business offering licenses and hardware resources for end users on-demand (competitive resource provision). Making use of economies of scale and SmartLM features, the ASP provides resources in a competitive way, makes existing models (e.g. short-term licenses) more attractive to customers, and introduces new ones the ISV is not willing to offer, such as pay-per-use for license reselling.

License extension - The license extension model allows end users to extend their licenses in both their Local Area Network (LAN) and distributed environments on-demand, e.g. for workload peaks. The license server manages the process of the extension of licenses, e.g. in terms of accounting and license administration. These mechanisms give end users more flexibility and value and at the same time generate additional revenue for ISVs and ASPs. A proper pricing model is of paramount importance for the success of this business model: a price that is high enough so license extension does not affect the overall business model of the vendor and total revenue is increased; at the same time, a price that is low enough so the extension of licenses is interesting for the end user. The question is: at which point it is cheaper for a customer to extend its existing license instead of paying for an additional one? The extension of licenses is more attractive for the end user if he automatically gets an additional license after reaching the break even point.

License aggregation - Most contracts between ISVs and end users restrict the license usage to LAN. The license aggregation model allows the use of licenses that belong to different sites and brings them together to form a single license token. These licenses can come from either the ISV or the ASP. End users gain more flexibility and value and get access to huge hardware resources. The ASP provides these hardware resources to the end user and generates additional business for the ISV. In this case, besides proper pricing, correct identification of end user location and license source is essential. The key element is the location of the license to be aggregated. There are special agreements between software vendors and local software distributors. These software distributors often have exclusive distribution agreements with an ISV and license aggregation should aim for a win-win situation that supports this business network.

Hardware-independent pricing model and feature-based accounting – The hardware-independent pricing model makes the license price become effectively independent of the underlying hardware, enabling this way a cost-efficient usage of licenses. With the introduction of a set of micro-benchmarks, the user is not tied to hardware anymore, hence is not punished for slower hardware. All we need is a set of pre-defined micro-benchmarks that measure different performance elements of the platform on which the application is running. A price can be fixed on a linear scale against a pre-defined reference point – the profiling system. The reference price model is negotiated between end-user and ISV or end-user and ASP. The profiling is done by the ISV to formulate the application performance in terms of the micro-benchmarks. The final price will always be a weighted reference price.

This benchmark model leads us to a more general approach, to a feature-based accounting. The core issue here is letting the application define the features and set what it wants to charge for. As opposed to the time approach, the feature-based approach is really independent of the machine where the application is being executed.

CONCLUSIONS

BOTTOM LINE
Although licensing models have evolved with technology innovations, they do not fully satisfy the business issues faced by today's enterprises. The focus of successful licensing and support has to extend beyond cost and technology issues, the goal is to achieve software licensing based on business objectives balancing customer needs and vendor business models.

Software plays a critical role in business. Traditional software licensing models are under pressure as they do not satisfy today's enterprises changing business needs. **PAGE 3**

Virtualized infrastructures and distributed environments (incl. the Cloud) call for flexible and non-hardware based license models that support service-oriented business models. **PAGE 3**

To enhance customer satisfaction and value, vendors need to adapt to changes in surrounding technology and offer a wider array of licensing options. The evolution of licensing should move along understanding usage and maximizing value. **PAGE 5**

The software licensing issue is a complex one because transformation is going on at a macro level where a lot of money is involved. **PAGE 3**

Software licensing is both a technology and a business concern, but the business issues are the most problematic ones. There seem to be a few basic rules that licensing should comply with. (SmartLR) **PAGE 4**

Through close collaboration with a wide range of stakeholders - software vendors, application providers, end users –, we identified some real licensing gaps and worked out new models that would help fill them in. **PAGE 6**

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