



# *SOFTWARE LICENSING “GOTCHAS” AND HOW TO MANAGE THEM*

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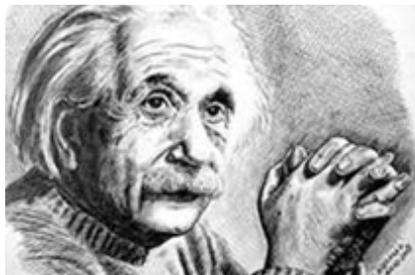
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## Software Licensing “Gotchas” and How to Manage Them

Today’s technology industry is characterized by revolutionary changes that are frequent and rapid. These changes impact how hardware is sold and software is licensed by all the major suppliers. Software publishers have responded by implementing new license models and metrics that are increasingly complex, creating a significant challenge for organizations to keep up and remain compliant with their license entitlements. What is the result? Software licensing complexities and nuances that we call “gotchas!”

In many instances, software licensing has become so complex that you may wonder if you need to be a mathematical genius to understand it. The truth is, while licensing models and metrics have become more complex, if you take the time to *understand the software licensing policies* of your suppliers and also *keep current* on any changes, then you will be in a much better position as you prepare for audits and contract negotiations.



Only the most savvy software license analysts understand the licensing policies that can cause a company to spiral out of compliance. What are some of these software licensing “gotchas,” and what can organizations do to manage them?

### Key Contributors to Software License Compliance Issues

In recent years, many organizations have found themselves out of compliance with their key software suppliers. Both the software publishers and end users share responsibility for this growing problem. What factors have contributed to this phenomenon?

During the dot-com craze, end users discovered that they were unable to download software quickly enough due to an administrative and procedural obstacle called the license key. End users had to wait to receive a specific numeric license key to download the software they needed. Many software publishers responded to this obstacle by abolishing their license key policies. Suddenly, end users had the ability to download a variety of software licenses more quickly, which created challenges for organizations to manage and control their software licensing.

Software publishers also bear responsibility. They have responded to revolutions in technology by changing their license models and metrics frequently, while adding layers of complexity. Typically, end users lack an in-depth understanding of their software contract terms and licensing metrics. To exacerbate this lack of understanding, their organizations often lack robust Software Asset Management (SAM) processes and practices that would alleviate the compliance issues they experience today. The combination of these scenarios has led to widespread software compliance issues.

Given the constant changes in licensing models and metrics, organizations need to gain a deeper understanding of software contract terms and licensing nuances. Let’s review some “gotchas” that fall into these categories:

- Contract Storage
- Licensing Models
- Product Use Rights
- Dependencies
- Virtualization
- Disaster Recovery

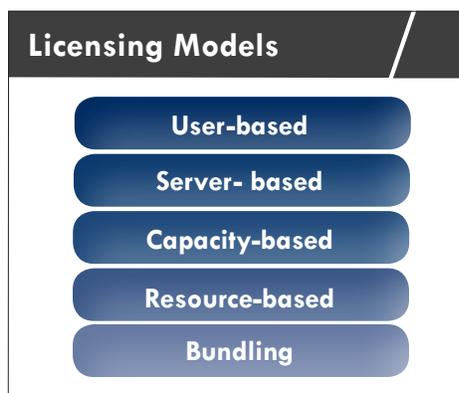


### **Contract Scope**

Limitations on the use of a software license can create compliance issues. Software publishers may limit usage based on geography, mergers and acquisitions, or increases in company revenue or employee count. From a geographic perspective, some software contracts may invoke very strict usage limitations by country, region, or even specific site. Mergers and acquisitions can come into play when software licenses are limited to specific business units, or sometimes a business may need to be majority-owned to apply. Furthermore, revenue or employee increases may trigger a change in licensing. Licenses tied to revenue or number of employees typically include a contract clause whereby corporate growth must be reported, and subsequent licensing adjusted, each fiscal year. For example, an Oracle customer could be compliant at the beginning of a contract term, but if their licensing is tied to corporate revenue, they could easily become non-compliant when their revenue increases and they do not record and report this change.

### **Licensing Models**

It is important to understand the various licensing models available and what you are entitled to within the terms and conditions of your software contract. Some of the most common licensing models are the following: user-based, server-based, capacity-based, resource-based and bundled. Bundling can be particularly confusing: if an end user is unaware that a software product they are entitled to enables rights to other supporting products, they could purchase the supporting products unnecessarily. For example, IBM’s WebSphere Process Server version 7.0 comes with several supporting programs. However Version 8.0 is bundled with an entirely different set of products. In this case, the end user needs to understand bundling for both version levels to ensure that they do not purchase additional software products unnecessarily.



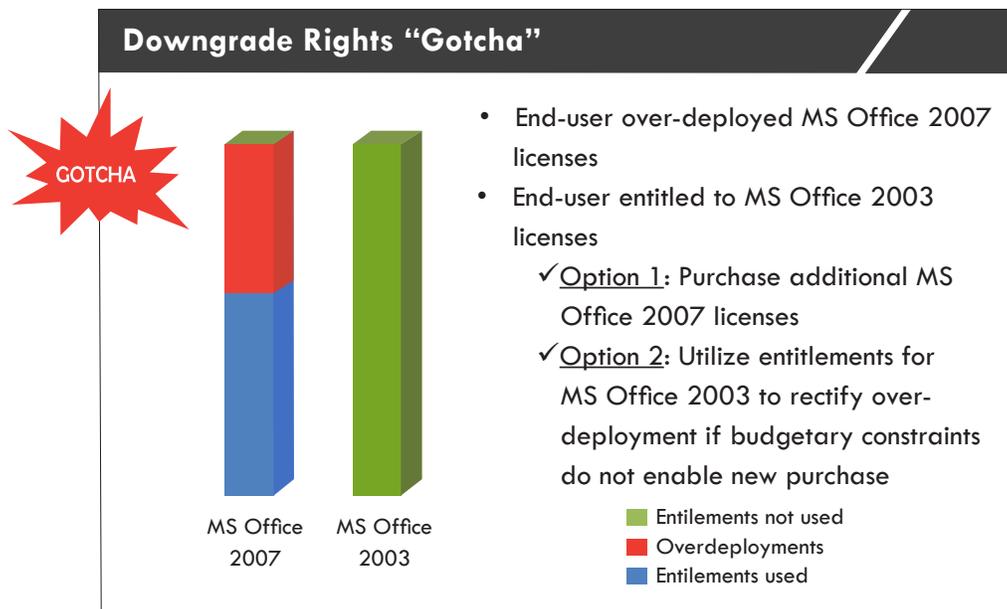
**Product Use Rights**

Product use rights, such as full use, limited use, second use and downgrade rights can all have a profound impact on software compliance. A product may include full use rights while allowing limited use of another product. If an organization is unaware of limited use rights, they may purchase new products unnecessarily. Second use enables a customer to deploy the same license on more than one computer so that additional licenses do not need to be procured.

Let’s review a specific example of how downgrade rights can affect licensing. An end user organization over-deployed Microsoft Office 2007 licenses. However, they were still entitled to Microsoft Office 2003 licenses. To rectify the compliance issue, the end user had two options:

- Option 1: Purchase additional Microsoft Office 2007 licenses
- Option 2: Utilize entitlements for Microsoft Office 2003 to rectify over-deployment, if budgetary constraints do not enable a new purchase of Microsoft Office 2007 licenses.

This end user employed licensing experts who understood the nuances and traps related to product use rights, and made a fully-informed decision. However, if the end user had been unfamiliar with the downgrade rights associated with their contract, they would have purchased Microsoft Office 2007 licenses even though this was beyond their available budget for the fiscal year.



Here are some examples where Bundling and Limited Use Rights saved organizations from a significant unbudgeted expenditure.

### *Fortune 500 Pharmaceutical Company*

One of the largest drug distributors in the United States was audited by Deloitte on behalf of a major software vendor. The initial audit of 15-20 of this vendor’s software products determined that the drug distributor was using a product we’ll refer to as “Product B,” for which they had not purchased individual licenses. The auditor determined that they needed to pay \$2.4 million to become compliant. However, the auditor did not take “bundling” into consideration, whereby the customer was allowed limited use of Product B with the purchase of full access to Product A.

For the purpose of checks and balances, the drug distributor engaged an ITAM consulting firm to conduct a post-audit review. Certified software license analysts determined that, according to the terms and conditions of the software publisher’s contract, the customer had the right to use Product B with no additional fees. As a result of this analysis, the pharmaceutical company saved \$2.4 million.

### *Fortune 500 Telecommunications Provider*

A Fortune 500 telecommunications company maintains a software enterprise agreement with the same major software publisher. Like the example of the pharmaceutical company, this agreement entitled the company to full use of Product A, with limited use rights for Product B.

This telecommunications provider engages experienced license analysts as part of a managed services solution for their ITAM needs. With a thorough understanding of software licensing as well as this particular enterprise agreement, these analysts were aware of the product use rights and informed the customer that they were not required to purchase licenses for Product B because they were already entitled to limited use. This analysis resulted in a cost avoidance of \$7 million for the telecommunications provider.

## **Dependencies**

Some license types can be dependent upon having entitlement to a base license or other products. For example, Oracle Database options or extensions require Oracle Database as the base product.

As discussed earlier, bundled products have specific limited use terms. IBM’s DB2 is bundled as part of certain WebSphere products, with deployment and access restrictions.

## **Server Virtualization**

Due to the nature of licensing in virtualized environments, it is easy to proliferate software licenses. The ability to partition servers, establish host machines and clusters, and count cores or processors results in confusion around software licensing. Here are some examples of licensing policies to be aware of with some of the leading software publishers.

### **IBM Sub-Capacity**

IBM's Sub-capacity licensing schema is designed to help organizations drive down software costs in their virtual environments. Organizations must obtain entitlements sufficient to cover only those activated processor cores available to the specific virtual machine(s) or hardware partition(s) where that software is installed. It is important to understand the following:

- Sub-capacity licensing typically requires a separate agreement, quarterly reporting and use of IBM's License Metric Tool (ILMT)
- Not all virtualization technologies or publisher's products are supported
- Movement within virtual farms can impact licensing
- Without a Sub-capacity agreement, organizations must license the entire server or cluster

One issue with Sub-capacity licensing is that it is easy to spiral out of compliance due to the movement of virtual machines within and between server groups. Virtual environments tend to change frequently, making it critical to track movement to maintain an understanding of the organization's license position and to make licensing adjustments as necessary.

Here is an example of how the establishment of a Sub-capacity agreement helped a company with an audit.

#### *Global Drug Development Services Company*

A drug development services company received an audit request from KPMG on behalf of IBM. The company was using around 75 IBM software products and while they had good discovery data, they had not performed any significant analysis of licenses deployed to entitlements. In preparation for the audit, they hired a team of ITAM experts to help determine their compliance position.

During the engagement, the ITAM experts found that while there were numerous virtual environments, the company had no Sub-capacity agreement in place and was unaware that this type of agreement even existed. Without a Sub-capacity agreement, the customer would need to pay several million dollars to become compliant with IBM. The ITAM experts educated the company on this fact, which then in turn pursued the Sub-capacity status to avoid a potentially large, unbudgeted true-up.

### **Oracle Database Licensing**

Virtualization has a significant impact on Oracle Database license counts. One of Oracle VM's main selling points is that Oracle considers Oracle VM a type of hard partitioning and VMware vSphere a type of soft partitioning. When an organization uses hard partitioning, Oracle only requires licensing for the processors (cores) in that partition. For soft partitioning, Oracle requires the end user to license all the processors (cores) in the server, even though there may be many more processors present than are allocated to the virtual machine.

It is important to understand whether hard or soft partitioning applies to your environment because there is a significant financial difference between the two.

Oracle recognizes partitioned servers built on its own OracleVM platform, but does not recognize VMware technology for partitioning. If you are using VMware rather than OracleVM, you must license virtual machines by the physical host server; in other words, the whole server or cluster must be licensed.

Core license factors **may** change over time for certain processors. Oracle publishes an update periodically. End users must be current with Oracle’s core factor table and ensure all server hardware has been properly identified.

### **BMC CPU Licensing**

There are some important nuances to understand about BMC CPU licensing. For some products, the full physical machine must be licensed. If virtual machines reside in a farm, the entire farm must be licensed. When licensing a physical machine or farm, processors must be counted rather than cores. The software licensing “gotcha” occurs when an end user mistakenly counts cores rather than processors. This results in purchasing more licenses than needed, or reporting an inflated number to the software publisher, creating an erroneous over-deployment scenario.

### *Disaster Recovery*

Disaster Recovery (DR) software licensing can generate some significant “gotchas.”

First, it is imperative to understand software publisher contract definitions for DR. IBM’s definition of DR is based on workload, while Oracle’s is based on frequency of use. IBM defines three levels of DR. The bottom-level may equate to free licensing. The mid-level may require a fee, while top-level DR is treated as licenses in production. With Oracle, after more than 10 days of use, the licenses are considered production-level.

Secondly, it is critical to understand your own internal DR configurations and utilization, and to not assume that your company definitions match those of your software suppliers. Making this assumption can lead to software compliance issues.

### **Summary**

In summary, here are three recommendations to sidestep the land mines of software licensing “gotchas:”

- Gain a deep understanding of your contracts and respective licensing models, metrics and nuances.
- Employ expert ITAM license analysts and contract specialists as an integral part of your ITAM process.
- Provide ITAM data analysis to your vendor management team that interfaces with your software suppliers, to prove your compliance position.

If you follow these guidelines, you will keep your organization in compliance, avoid software licensing land mines and prevent potentially significant unnecessary expenditures. And you’ll avoid the dreaded ITAM “GOTCHAS!”

## About Siwel Consulting, Inc.

Siwel Consulting delivers industry-leading technical expertise and IT implementation services, including innovative virtualization, storage, end-user computing and cloud enablement solutions, comprehensive IT asset management programs, efficient management of the IT supply chain and cost-effective staffing services. We work closely with each client to optimize IT assets and align IT strategy with overall business objectives. Our longstanding partnerships with the most important IT innovators guarantee that Siwel clients always have access to the most current, most reliable and most cost-effective IT solutions. The result is greater operational efficiency, new sources of competitive advantage and additional revenue opportunities.

Siwel is a woman-owned business founded in 1992, and is headquartered in New York City.

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