

WHITE PAPER

Automated Citrix/WTS Usage and License Checking with Software Management Suite 2007

The licensing of applications provided via Windows Terminal Server and Citrix Server is no trivial matter. Software Management Suite efficiently helps you to make the most of the significant potential savings.

The difficulty of licensing is, of course, no excuse for infringements. Organizations have to ensure that access to Windows Terminal Services (WTS) and Citrix is also properly licensed, documented and - in their own best interests - verifiably maintained. This white paper demonstrates how Software Management Suite delivers potential savings in the Citrix and WTS world by efficiently maximizing Remote Use license rights as well as providing better information as a decision-making basis for purchasing and IT planning.

Executive Summary

It is not possible to make savings until you have a precise overview of the software that is in use as well as of purchased licenses and agreements. Reconciliation of this information is a necessity for every single product that is subject to licensing. This reconciliation must include all usages and installations in all areas. This means it must also include any software use on the Citrix/WTS system. Correct reconciliation between the installed base and commercial data can be totally falsified if this aspect is neglected. Experts agree that anyone not documenting and reconciling such usage is at least guilty of negligence.

The simplest and quickest method would be to fully license all theoretically possible accesses to the application software that is installed on Citrix/WTS. This is, in fact, a frequently expressed requirement. However, it is also the most cost-intensive alternative, and is generally exaggerated and uneconomical. Anyone who can produce an automated software inventory that accounts for actual Citrix/WTS usage is clearly at an advantage.

Example: Only Exact Knowledge Delivers Savings

A company called Bricklocker Incorporated has Microsoft Project 2007 Standard installed on 100 out of 1000 desktop computers. 100 additional employees also use the software via Citrix/WTS sessions. There are currently no licenses for this software. Greta, the company's License Manager, wants to initiate the purchase of 200 licenses.

An employee of the company's auditors, however, demands the purchase of Project 2007 Standard for all 1000 desktops. He argues that the software can be loaded on all computers, so every one of the computers requires a license on the basis of the applicable per-seat licensing.

That would mean increasing the budget for the Project 2007 Standard licenses to be purchased by a net amount of about US\$416,000.

After consulting the software publisher, Greta hires a Microsoft-authorized software asset management (SAM) Consultant who knows all about the required licensing. The SAM consultant advises the company to purchase specialized license management software to generate better quality and more complete data for budgeting and purchasing. This tool should, in addition to the normal client/server world, also be able to deal with Citrix/WTS. It should be able to do more than just deliver raw installation data — it should deliver the data in processed form.

Greta and her boss decide to buy Software Management Suite as recommended by the consultant. At US\$13 per computer and US\$6.50 per Citrix device access, it costs about 5% of the additional expenses under consideration.

A few short weeks later, Greta's organization can clearly demonstrate with Software Management Suite that it is in full compliance with the Microsoft Product Use Rights with regard to remote use. They can prove that sessions with Project 2007 Standard are only started from licensed computers.

It would have been hard to deliver that proof without Software Management Suite. On the one hand, the company was forced to accept that 142 employees and not 100 were using sessions with Project 2007, and ultimately had to buy 242 licenses. They also found out that some people do still use prior versions. On the other hand, however, the potential savings were maximized. Greta can now also rely on current and complete data.

Network w/ WTS/Citrix Application Server

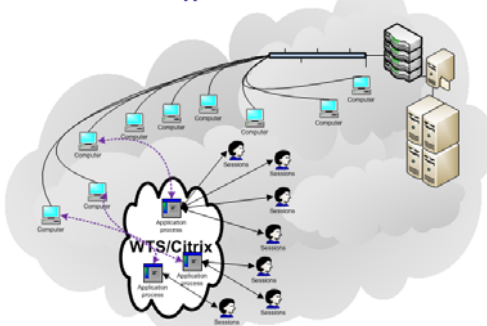


Fig. 1: Network with WTS/Citrix Environment

Automation is a Basic Requirement

If licensing is to be differentiated and not just based on all potential usages, it is especially true in the Citrix/WTS world that only automated documentation and/or creation of a software inventory makes sense. Only automation can ensure not only that potential savings are actually utilized but also that all relevant usage in terms of licensing laws is recorded.

Software Management Suite 2007 is a system that takes special licensing situations into account in order to deliver better quality data for budgets, contract negotiations or purchasing.

License Reconciliation Report

Software	Licenses							License Analysis				
	Purchased	+ Downgrd Basis	- Installed	- Updates	- Downgrades	= Stock/Pool						
MICROSOFT												
Microsoft Project 2000 Standard 9.0	1	+	2	-	3	-	0	=	0	✓		
Microsoft Project 2002 Standard 10.0	0	+	14	-	14	-	0	-	0	✓		
Microsoft Project 2003 Standard 11.0	242	+	0	-	32	-	194	-	16	=	0	✓
Microsoft Project 2007 Standard 12.0	194	+	0	-	194	-	0	-	0	=	0	✓

Fig. 2: License Balance Report: a Product-by-Product Compliance Analysis of the Installed Copies and Purchased Licenses

Microsoft Remote Use Rules

Licensing for access to Microsoft application software via WTS/Citrix servers has to follow a series of established rules. These rules are defined in the respective Microsoft Product Use Rights (PURs), and they are fleshed out in the available Microsoft License Briefs. Unfortunately, however, the explanatory information provided by Microsoft is not always easy to read, so it tends to get interpreted. As a result, it is frequently understood that licensees have to purchase licenses for all clients that can potentially access WTS/Citrix systems. That, however, is precisely not what is required. Please check this here:

<http://www.microsoft.com/licensing/resources/volbrief.msp>

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Ongoing Software Asset Management

One thing is certain: provision of application software on terminal servers requires careful planning. Planning and, above all, subsequent documentation helps to guard against rude awakenings if compliant licensing is already accounted for as early as the planning stage. It is important to keep the documentation current, otherwise the time and effort involved in updating it can quickly get out of hand. Therefore, the best solution is automated documentation, as delivered by specialist tools like Software Management Suite 2007. This tool provides on-going software asset management to keep data current at all times.

Automated documentation of software usage on WTS/Citrix servers provides a clear solution both for the problem of verification and for proper licensing. This raises the question of what capabilities such an automated documentation system has to have in order to convince even the most thorough auditors and external inspectors. Additionally, purchasers and license managers need to be sure that they do not end up buying too few or indeed too many licenses as a result.

Prerequisites of License Management

First and foremost, such a system should undoubtedly be able to produce a clean software inventory that makes reconciliation of installed and used products with the purchased licenses possible. The system should definitely check for compliance with software publishers' license rights, and should check for and also require per-seat licensing for each usage in the Citrix/WTS world.

Additionally, a system of this kind should ensure that license rights are actually utilized in order to make sure that too many licenses are not required. A separate white paper on **Automated Maximization of License Rights** is available at <http://Softwaremanagement.org/public>.

Verifiable Results

Auditors and external inspectors need to get an impression of how a license and documentation system works in order to be able to decide whether it works correctly and delivers reliable license balance sheets.

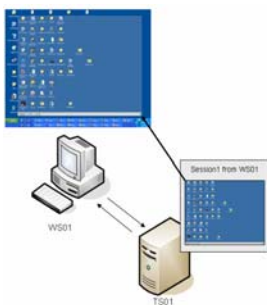


Fig. 3: Published Desktop

Therefore, the licensing rules and the software catalog on which the software and license inventory is based, or the software detection rules, should be openly accessible and documented.

If these requirements are not met, the system is not able to deliver the basic data for error-free verification.

Basic Requirements for Citrix/WTS SAM Tools

In order to guarantee proper licensing of Citrix and Windows terminal server accesses, multiple components are required to automatically ensure that all license-relevant usage is fully reported and that all accesses are analyzed in the correct device and user context.

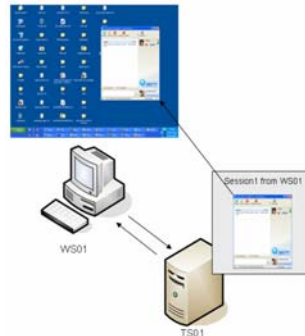


Fig. 4: Published Application

Citrix and WTS systems provide access from a client to Citrix/WTS servers in order to run programs on them, and to transfer the display from server to client and user responses from client to server. Additional servers can also be accessed via a process called "server hopping". This means relaying from the first server to further Citrix/WTS servers. It is conceivable that a published desktop could be provided on one server with subsequent calling of a published application or additional published desktop on another server. This scenario involves multiple computers. The Software Management Suite 2007 software asset management (SAM) system makes sure that the client device, where

the user is seated, is correctly reported and that all software in all sessions is assigned to it.

Therefore, Software Management Suite meets the primary requirement of software publishers regarding per-seat licensing.

ROI with Software Management Suite

Efficient utilization of license rights has a significant impact on any organization's return on investments with regard to software licenses and agreements with all associated expenditures. Only genuinely automated verification and application of license rights can guarantee that those rights are actually in continual use, thus achieving considerable savings in terms of license costs and resources.

License rights analyzed by Software Management Suite:

- License downgrades, differentiated according to downgradability and value
- Full license history
- License upgrade protection, e.g. for Software Assurance
- Secondary use
- Remote use based on sessions

License restrictions verified by Software Management Suite:

- Named user licenses
- Non-perpetual licenses
- Node-locked licenses
- Highest product version when an upgrade protection agreement expires
- CPU licensing of Microsoft SQL Server
- Per-seat remote use licensing

The combination of the full license history with downgrade rights, update protection and checking for secondary and remote use guarantees the best possible result.

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Automating Mandatory Documentation

License and software asset management involves documentation obligations that can be fully met using Software Management Suite. There are obvious advantages to having all licenses fully documented in one place and filing not only license documents and agreements but also orders, bills, delivery notes and other information for immediate access in any format.

Access Models

Published Desktop and Published Applications are standard access models with Citrix. Whereas a Published Desktop provides a complete desktop environment with individual settings, via which startable programs are accessible, a Published Application is embedded in the individual desktop and is called in a way that is indistinguishable from conventional programs.

Traceability and Accumulation

In order to meet the demand for per-seat licensing, it must be possible to trace server accesses back to the client device. Each software product that is available in sessions must then be assigned to the PC that calls it. This assignment offers significant potential savings if the application software called in a session is already installed on the device that calls it. This means that a license is already required, and additional licenses are generally not necessary for additional use possibilities. This assignment is a kind of accumulation, because software that is installed on the desktop is combined with the software called in sessions to produce a single software inventory for that machine. Software Management Suite 2007 performs this accumulation automatically.

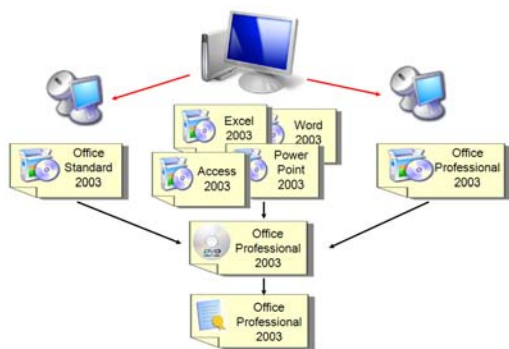


Fig. 5: Software Cumulation to Ensure Device Licensing for Applications on Citrix/WTS

Consistency of Versions and Editions

The use of licenses for an earlier version or lower edition to access later versions or higher editions is not permitted. Conversely, however, access to an earlier version from a later version or access to components or lower editions from a higher edition is permitted. The important thing is that all components of the lower version are also included in the higher version. Assuming volume licensing, therefore,

you can use a Microsoft Office Professional license to access Microsoft Office Standard or just Microsoft Access, for example.

Software Management Suite 2007 automatically checks this; that is to say, it initially requests a license for the higher edition or version.

Advantages of Software Management Suite 2007

1. Correct **automatic** reporting of all accesses to Citrix and WTS servers, regardless of access type — Published Desktop or Published Application.
2. **Automatic** tracing of each Citrix/WTS access to the original client in order to map the used software to it, thus ensuring that the requirements of per-seat licensing are met.
3. **Automatic** detection of the main user of a device. Evaluation of side-usage by the same user on different devices, and accumulation of such usage for the user's main device.
4. **Automatic** reporting of remote assistance as **non-relevant** access in licensing terms.
5. Considerable added value as a result of concentrated analysis and utilization of license rights with Citrix/WTS usage. This produces a faster ROI, and ultimately delivers more reliable compliance and considerably greater savings in the long term.

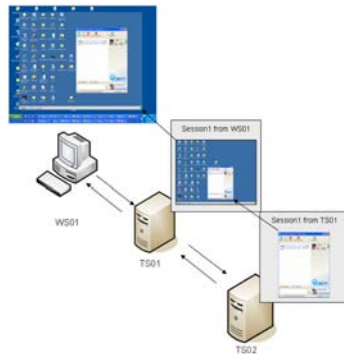


Fig. 6: Published Application on Published Desktop

Process Support in Accordance with SAM ITIL and ISO 19770-1

With its functionality, operating principle and structure, such as automated validation, Software Management Suite supports ITIL Best Practice for Software Asset Management and ISO 19770-1 procedures. The system delivers full, highly automated documentation across all publishers, license types and platforms. It efficiently supports the tasks of SAM managers, specialist consultants and auditors.

In addition to a SAM software solution like Software Management Suite, procedures and guidelines are critical. Procedures that are not designed consistently and have gaps can give rise to indefinitely high costs.

SAM managers often reach their goals more quickly and with better results if they take advantage of **professional assistance from experienced consultants and experts** in addition to excellent tools like Software Management Suite. License and process knowledge is intensively transferred to SAM managers within the organization in this way.

Therefore, Software Management Suite delivers significant added value that enables organizations to achieve and maintain compliance, to budget intelligently, and to make savings on license costs and resources.

Further information is available online at <http://Softwaremanagement.org>

CANCOM is an authorized reseller of Software Management Suite Please check <http://www.cancom.de>

