



How New Schemes Effect You

Management Suite Licensing Changes

Over the next few years, using System Center products to manage large numbers of virtual machines on servers containing more than two processors will get more expensive

Starting July 2009, Microsoft began offering two types of management suite licenses rather than one, the most important difference being the number of virtual machines (VMs) that can be managed. Both System Center Server Management Suite Enterprise (SMSE) and the new Server Management Suite Datacenter (SMSD) allow management of server workloads using Operations Manager, Configuration Manager, Data Protection Manager, and Virtual Machine Manager. For past and future customers managing servers with one or two processors, the changes are mostly price-neutral. However, some customers licensing larger servers will see substantial price increases, mostly in the form of rising future Software Assurance (SA) payments.

(For background on the function of each of the System Center products and how they are licensed individually as well as in a bundle, see the sidebar “Primer on Licensing System Center Products” later within this article.)

What Changed

Before the July change, an SMSE license provided rights to use all four System Center products to manage an unlimited number of operating system environments (OSEs) running on a licensed physical server. (OSE is a term that can refer to both physical and virtual OS instances.) After the change, new SMSE licenses allow management of no more than four simultaneously running VMs, as well as the physical Windows Server OS instance, assuming the physical OS performs no other workload (such as file and print services) other than hosting the VMs. To account for the reduction in functionality, Microsoft cut the cost of an SMSE license by 20%, with the Open Volume price (which reflects the maximum price a business customer would pay through volume licensing) now US\$783 per device, down from

US\$980.

In concert with the restriction of SMSE use rights, Microsoft introduced a new Server Management Suite Datacenter license, which, like the original SMSE license, allows management of an unlimited number of OSEs. However, unlike SMSE, SMSD is licensed per processor (i.e., per CPU socket) rather than per device, with a minimum of two per-processor licenses required for any one physical device (even if it has only one socket). SMSD is priced at US\$490 per processor (Open Volume), exactly half the old SMSE license price per device. This makes the cost of managing a one- or two-processor server running an unlimited number of VMs exactly the same as before.

As was the case with SMSE before the July 2009 change, both SMSE and SMSD require ordering SA at time of purchase, which commits customers to between one and three annual payments of 25% of the original license cost, depending on the term remaining on the volume licensing agreement under which the SMSE/SMSD license is purchased. (Among other things, SA provides the right to upgrade at any time to new product versions released during the term of coverage.) For example, the cost of acquiring two SMSDs through Open Volume, a two-year agreement, is a total of US\$1,470 for the licenses and two years of SA coverage.

Microsoft says the main rationale for the changes was to make virtualization rules and licensing models for SMSE and SMSD licenses consistent with rules and models for the Enterprise and Datacenter Editions of Windows Server. Windows Server Enterprise Edition allows up to four running Windows Server VMs and is licensed per physical server, and Microsoft expects most customers to purchase an SMSE license to manage such systems with System Center, while Windows Server Datacenter Edition permits an unlimited number of Windows Server VMs and is licensed per processor, and such systems would most likely be managed via purchase of SMSD per-processor licenses. However, the

rules and licensing models are still not entirely consistent between the management suites and Windows Server editions; for example, Windows Server Datacenter prohibits running the OS on a server with less than two processors, whereas SMSD places no such restriction on the server being managed.

Transition Options for Existing Customers

For customers who bought SMSE licenses before July 1, 2009, the original annual SA payment amount and usage rights (ability to manage an unlimited number of OSEs) remain in place until the end of the SA (i.e., volume agreement) term.

While these existing customers don't need to take any action before the end of their current SA term, they can, at any time before SA term expiration, avail themselves of a special accommodation which allows customers who licensed one- or two-processor servers with SMSE (prior to July 1, 2009) to acquire limited numbers of "free" SMSDs to license additional servers for management by System Center. While customers never have to pay for the SMSD licenses themselves, they do have to pay associated annual SA payments. Here is how it works: at any time prior to the end of the SA term for the original SMSE license, the customer can convert each SMSE to four SMSDs by beginning SA payments on all four SMSDs (which under Open Volume would be US\$490, double the annual SA payments made on the original SMSE license). The customer can then assign two SMSDs to the original (one or two processor) server and the two remaining SMSD licenses to another server.

At the end of their current SA term, assuming they haven't already exercised the conversion described above, customers will face three options.

Convert SMSE to SMSDs and pay SA on SMSDs. As part of the licensing transition, Microsoft grants existing customers the right to convert each SMSE license into four SMSD licenses. As a practical matter, however, some of these licenses are likely to go unused, since Microsoft stipulates that all four must be assigned to the same device, unless the customer commits to make annual SA payments on all four SMSDs (which, as mentioned above, doubles the annual SA payments).

When renewing SA on those licenses, a customer with a one- or two-processor server previously licensed with SMSE would now need to renew SA on those two licenses, while renewing SMSD on a four-processor server will require SA renewal for all four granted SMSD licenses. As part of a special promotion, if SA is renewed prior to July 1, 2011, a customer can maintain SA on all four granted SMSD licenses by renewing coverage on only two. However, upon subsequent SA renewal after 2011, maintaining SA on all four SMSD licenses will require annual SA payments on all four.

Maintaining the ability to manage an unlimited number of VMs on servers with five or more processors will require customers to acquire additional SMSD licenses beyond the



four granted.

Renew SA on SMSE. Customers satisfied with the new SMSE virtualization limits can forego the SMSD conversion offer discussed above and cut their SA payments 20% (because the SMSE price declined 20% and SA payments under a new agreement are based on the new license price). This option makes the most sense for any server that either doesn't use virtualization or hosts only small numbers of VMs. It especially makes sense for servers with four or more processors dedicated to a single task, such as some database servers.

Don't renew SA. Customers electing not to renew SA also have the option, at no additional cost, to convert the original SMSE license into four SMSD licenses (all assigned to the same physical server) or keep it as is. In either case, they'll forfeit the ability to deploy future versions of System Center but maintain perpetual rights to manage licensed servers using the most recent version of System Center products released prior to the date SA was terminated.

If a server has four processors or less, the customer will want to exercise the SMSE to SMSD conversion option so as to maintain the ability to manage an unlimited number of VMs running on a physical server. However, since the SMSE to SMSD conversion option doesn't provide enough SMSDs to fully license a server with more than four processors, the only way to avoid additional payment to Microsoft for such large servers is to forgo conversion and keep the SMSE license. However, SMSE licenses purchased before July 2009 had a clause stating that if SA coverage were allowed to lapse, future access rights would be determined based on the product use rights in effect just prior to the lapse in coverage (in this case, management of a maximum of four VMs plus the physical OS) rather than the rights in effect at the time the original SMSE license was purchase (unlimited).

Acquiring New SMSD Licenses at a Discount

To temporarily blunt the increased cost of licensing four-



processor (or larger) servers used to host large numbers of VMs, Microsoft is offering a special “buy two and get two free” promotion for new SMSD licenses purchased through Feb. 28, 2010. For example, a customer with a four-processor server purchasing two SMSD licenses (with SA) receives another two licenses (with SA) at no additional charge. Furthermore, if a customer places the purchase under a volume licensing contract which expires prior to July 1, 2011, the customer can later renew SA (for a two- or three-year term, depending on volume licensing agreement type) on all four licenses for the price of two. However, customers wishing to maintain rights to use the latest versions of System Management products will eventually be responsible for SA payments for both the purchased and complimentary SMSD licenses, meaning that at some point before mid-2014, SA payments will double. Note that under this “buy two and get

two free” promotion, if a customer elects not to renew SA at the end of the volume agreement term, the customer maintains perpetual rights for all four SMSD licenses (i.e., both the purchased and the complimentary).

Implications

Beyond incurring some extra administrative work to maintain a record of the SMSD licenses to which they are entitled, customers using System Center to manage one- or two-processor servers remain unaffected. The license and SA fees they pay to Microsoft and the rights they have to use the software remain largely intact. However, customers using servers with three or more processors to run heavy virtualization loads will see the cost of licensing new servers rise in early 2010, and ongoing annual SA costs increasing substantially some time between mid 2011 and mid 2014.

Primer on Licensing System Center Products

Microsoft currently has four major products in its System Center line targeted at large enterprise customers:

- Configuration Manager (CM), to automate software deployment, inventory hardware and software assets, and report on OS and application compliance with configuration policies set by administrators
- Data Protection Manager (DPM), to capture frequent backups of application and system data to disk, tape, or Internet storage
- Operations Manager (OM), to monitor hardware, OS, and applications; detect symptoms of poor health; and automatically take corrective action or help identify the root cause of a problem
- Virtual Machine Manager (VMM), to provision and manage virtual machines (VMs), store VM images in a library, and patch these images (with the assistance of CM or Windows Server Update Services, a free product)

All four major System Center products consist of an agent that executes on each managed device and a central management infrastructure. Typically run as a dedicated server or servers, this infrastructure communicates and coordinates with the agents; stores backup, performance, configuration, and other management data; and provides an administrative console. All four products require managed devices to be licensed, and all except VMM require customers to purchase additional server licenses for the central management infrastructure.

Licensing CM, DPM, and OM Individually

CM, DPM, and OM require management licenses (MLs) for each managed device. MLs are simply a set of legal rights with no digital footprint—they are not installed as software or recorded in the Windows Registry or Active Directory—so it is up to customers to set up their own compliance monitoring or enforcement system.

All three products offer three types of MLs: a Client ML for monitoring Windows desktop environments (users’ PCs or virtualized desktops) and two types of MLs for servers—a Standard Server ML for basic server management functions or workloads and a more expensive Enterprise Server ML to address more advanced needs. For example, an OM Standard ML permits monitoring system hardware and core server OS components, such as file and print services, Dynamic Host Configuration Protocol (DHCP), and Distributed Naming Service (DNS). An OM Enterprise ML expands this list to include directory and identity management services (such as Active Directory), as well as server applications (such as SAP Enterprise Resource Planning or SQL Server). In all cases an Enterprise ML is a superset of the corresponding Standard ML, so a customer would always license with one or the other, but not both.

Either a Standard ML or an Enterprise ML must be assigned to each managed operating system environment (OSE), which refers to either a physical or virtual OS instance. For example, in the case of CM or OM, two Standard or Enterprise MLs are required to manage or monitor two Windows Server virtual machines (VMs) running on a physical server, and a third Standard or Enterprise ML is required to manage or monitor the physical server’s own OS. When using DPM to protect multiple VMs hosted on a server, customers have a choice. Purchasing a DPM ML for each VM provides granular backup and restore capabilities of data or software within each VM, whereas buying a single DPM ML for the physical server limits customers to backing up and restoring the Virtual Hard Disk (VHD) file that contains a VM in its entirety.

Client MLs can be assigned per-OSE or per-user, the former less expensive if multiple users share a PC and the latter more cost effective if a user has more than one PC or runs multiple desktop VMs.

The prices of MLs are similar across all three products: For example, the Open Volume price, which reflects the maximum price a business customer would pay through volume licensing, is US\$154 for each of the Standard MLs, US\$423 for each product’s Enterprise ML, and between US\$32 and US\$41 for each product’s Client ML.

Licensing CM, DPM, and OM also require purchase of a server license for each OSE used in the management infrastructure.

Unlike most other Microsoft server applications, which come in two or more editions (typically Standard and Enterprise), CM, DPM, and OM server software has only one edition. The server license for each product ranges in price between US\$570 and US\$1,300, depending on the product and whether a limited use license for SQL Server is included (all three products depend on SQL Server).

Licensing VMM

VMM has one level of ML for customers with more than five physical servers to manage, the VMM Enterprise ML. The Open Volume price for a VMM Enterprise ML is US\$852, twice the price of the Enterprise MLs for CM, DPM, or OM. However, in contrast with the MLs for the other System Center products, each VMM Enterprise ML license is assigned to a physical server rather than to just one OSE, which means a single VMM Enterprise ML entitles a customer to manage any number of VMs running on the licensed device. Furthermore, purchasing a VMM Enterprise ML for each managed physical server is all that is required to license the product: The VMM Enterprise ML includes the right to run the VMM infrastructure software on any number of servers. (Customers with five or fewer servers to manage can buy VMM Workgroup Edition for US\$495, which includes management licenses to manage five physical servers as well as the right to run VMM infrastructure software.)

To license clients managed by VMM, Microsoft offers a VMM Client ML for US\$40 that can be assigned per user or per OSE.

Management License Bundles

Since Oct. 2007, Microsoft has offered a bundle called the System Center Server Management Suite Enterprise (SMSE) containing Enterprise MLs for CM, DPM, OM, and VMM. (As is the case when CM, DPM, and OM MLs are acquired outside the bundle, server licenses to run the CM, DPM, and OM management infrastructures must be acquired separately.)

SMSE is purchased per managed device rather than per OSE, which is how a stand-alone VMM Enterprise ML is licensed but different from Enterprise MLs for CM, DPM, and OM (which are licensed per OSE). Furthermore, unlike all four individual Enterprise MLs, SMSE requires ordering Software Assurance (SA) at the time of purchase, which commits customers to annual payments of 25% of the original license cost for the term of their current volume licensing agreement (and can, at the customer's discretion, be renewed thereafter).

The SMSE license—which started out at US\$856 (Open Volume), rose to US\$980 in Nov. 2008, and then was cut to US\$783 in July 2009—constitutes a substantial discount to the cost of acquiring the component licenses separately. This was especially true considering that up until packaging changes were made in July 2009, SMSE provided rights to use all four System Center products to manage an unlimited number of OSEs running on the licensed device. Starting July 2009, a new Server Management Suite Datacenter license—priced at US\$490 per processor—provides management of an unlimited number of OSEs, whereas SMSE is limited to a maximum of five (four VMs plus the physical OS).

Resources

SMSE and SMSD licenses can be acquired as part of larger server product bundles, as outlined in “New Enrollments Provide Broad Server Licensing” on page 26 of the *Directions on Microsoft September 2009 Update*.

SMSE to SMSD transition terms and special SMSD purchase offers are described in Microsoft's monthly Product List, starting with the July 2009 edition, available at www.microsoftvolumelicensing.com/userights/PLArchive.aspx. The relevant sections were extracted in the blog ladylicensing.spaces.live.com/blog/cns!87F95F1B5B21B01E!1814.entry.

Configuration Manager and Operations Manager licensing details are covered in “Configuration Manager Licenses More Costly, Restrictive” on page 23 of the *Nov. 2007 Update* and “Operations Manager 2007 Packaging, Licensing, Pricing” on page 22 of the *June 2007 Update*.

Technical overviews of the most recent versions of System Center products can be found in “Operation Manager 2007 R2 Manages Non-Windows OSs” on page 3 of the *Aug. 2009 Update*, “Virtual Machine Manager 2008 R2”

on page 18 of the *Apr. 2009 Update*, “Hyper-V, Cloud Storage Added to Data Protection Manager” on page 14 of the *Feb. 2009 Update*, and “Configuration Manager Updated to R2” on page 10 of the *Nov. 2008 Update*.

The benefits and costs of Software Assurance are described in depth in the “Software Assurance” chapter in the *Directions on Microsoft May 2009 Licensing Outline*, “Microsoft Volume Licensing Programs.”

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