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Guide for Installing KMS in windows server, and setting up Volume activation for windows 7 and Office 2010

What is a Key Management Service (KMS)?

KMS is a service that runs on Windows Server (or windows 7) that activates operating systems and/or Office installaions on your local network, eliminating the need for individual computers to activate directly with Microsoft.

KMS is currently at version 1.2, which can activate Windows 7 and Server 2008 R2 systems. A KMS server can run on either windows 2008, Windows Vista/7 or Windows Server 2003 with SP1 and later. It is recommended to run KMS on a Windows 2008 R2 server or Windows 7 - which runs 1.2 out-of-the-box. Any other server version will need to be installed / patched to version 1.2.

Note: If you are planning on using the KMS to activate Office 2010, you cannot use Windows Server 2008 - you need to use 2008R2, 2003 or Windows 7

KMS 1.1 for 2003 SP1 x86 and above: http://www.microsoft.com/downloads/en/details.aspx?FamilyId=81D1CB89-13BD-4250-B624-2F8C57A1AE7B&displaylang=en

The KMS 1.2 patch for windows server 2003 is avaialble here: http://support.microsoft.com/kb/968915

The KMS 1.2 patch for windows server 2008 is available here: http://support.microsoft.com/kb/968912

To activate Windows Vista / 7 with KMS, you must have at least 25 computers; for Windows Server 2008, the minimum is 5 computers.

Basically, when the first 24 machines try to activate, the activation will fail, but when the 25th machine tries to activate, all machines will activate. The same goes for Windows Servers - the first 4 wil fail, but once the 5th tries, all will activate. Machines that are activated with your KMS will need to re-activate again every 6 months.

KMS Setup

On your server, open a command prompt with elevated privledges.

At the prompt type: *cscript c:WindowsSystem32slmgr.vbs /ipk xxxxx-xxxxx-xxxxx-xxxxx-xxxxx* Replace the x's with your KMS product key. If your KMS server is on 2008R2 server, It needs to be the Windows Server 2008R2 Std/Ent KMS B key, not the Windows 7 key. You will have a seperate Windows 7 KMS key if you use Windows 7 as the KMS server.

Press enter and you should get the following output:

Microsoft ® Windows Script Host Version 5.7
Copyright © Microsoft Corporation. All rights reserved.
Installed product key xxxxx-xxxxx-xxxxx-xxxxx-xxxxx successfully.

Your Windows server will now need to be re-activated. If you are behind a proxy server, you will need to manually activate this key with Microsoft. The easiest way us to use the Phone activation.

At the prompt type: *slui.exe 4*

Choose **Show me other ways to activate** -> **use the automated phone system**

You will need to enter Activation ID displayed into the phone, and enter your confirmation ID into the boxes.

Restart the Volume Activation Service:

If your server is running 2008 or 2008: run *net stop slsvc && net start slsvc*

If your server is running 2008R2 or Windows7: run *net stop sppsvc && net start sppsvc*

Once the service has been restarted, your KMS should be ready to start activating machines.

Volume Activation Management Tool (VAMT) 2.0

Now that you have a working KMS, you can install the Volume Activation Management Tool to manage the KMS.

Download the VAMT 2.0 here: http://www.microsoft.com/downloads/en/details.aspx?FamilyID=ec7156d2-2864-49ee-bfcb-777b898ad582&displaylang=en

VAMT can show you which machines are activated with which keys.

Office 2010 KMS

Download and install the **Microsoft Office 2010 KMS Host License Pack** from here: http://www.microsoft.com/downloads/en/details.aspx?FamilyID=97b7b710-6831-4ce5-9ff5-fdc21fe8d965&displaylang=en

Note: The Host License Pack will only work on Windows 7, Windows Server 2008R2 or Windows 2003 servers - Not on Windows 2008 (non R2). I have read that KMS on Windows 2003 server has no grace period, but I have not tested this out for myself. If you do not have a Windows 2008 R2 server it is recommended to install Windows 7 (either on a physical machine or a virtual machine hosted on the Windows 2008 server) and install the KSM and VAMT tools.

During the installation, you will be prompted to enter your KMS host key.

Once installed, open the command prompt and enter *c:windowssystem32cscript slmgr.vbs /dti bfe7a195-4f8f-4f0b-a622-cf13c7d16864*
and press enter.

Once the script has finnished running, it will display the Activation ID; Write down this number in blocks of six. You will need to enter this activation ID via the phone activation process, so writing it down in blocks of six numbers will make it much easier to enter.

At the command prompt type *slui.exe 4* and press enter.

When the activation window appears, ring the phone number displayed and choose option 1 for activate windows.

Ener the Activation ID that you wrote down earlier - **do not enter the numbers that appear on the activation window** .

Record the Confirmation ID that is spoken back to you, or better yet, type it into a text file (so you can paste it onto the command line later).

At the command prompt type: *c:windowssystem32cscript slmgr.vbs /atp xxxxxxxxxxxx bfe7a195-4f8f-4f0b-a622-cf13c7d16864* , where xxxxxxxxxxxx is your Confirmation ID and press enter.

Thats it - your KMS server will now have an activated Office 2010 KMS key, and can now activate Office 2010 on your network.

Testing and Troubleshooting KMS

Check DNS settings

Once the KMS server is setup, it should have placed an entry in your DNS server - in your domain's _tcp Forward Lookup Zones. There should be a _VLMCS entry pointing to your KMS server.

You can check that your machines can find this by running this at the command prompt of a machine in your domain:

nslookup -type=srv _vlmcs._tcp

This command should return the service record from DNS and show you which server name / IP address the service record is pointing to.

Check License States

You can check what state the license is currently in by running this command from the command prompt on the WIndows 7 machine:

c:windowssystem32cscript slmgr.vbs /dli

A computer can be in a number of different license states e.g.:

Initial grace Period
This occurs after the computer is installed and can only last for up to 30 days. You can re-arm

windows twice to reset this period.

Non-Genuine grace Period
This occurs after a computer is found to have a non-genuine or counterfeit Windows operating system installed. This state can last up to 30 days to give you time to reactivate using a genuine copy and License key.

Out-of-tolerance grace period
This can occur when either several hardware changes are made to the computer or when the KMS key has not contacted Microsoft for updates in 180 days. This state can last up to 30 days.

Additional Grace Period:
If major hardware changes are made to your computer, Windows may prompt you to reactivate Windows. This state can last up to 30 days.

Licensed
This state occurs when the machine has contacted the KMS and the system is activated.

Unlicensed
This state occurs when the activation period has expired and nothing was done about it. The computer will stay in a limited access state until it has been activated.

Check KMS Server Status

You can check what is going on in your KMS serer by running the same command as above, but this time, run it on the KMS server:

c:windowssystem32cscript slmgr.vbs /dli all

Note: the "all" will show the status of all keys in the KMS, so if you have installed

an Office 2010 key too, you will see its status here.

You will get output similar to this:

```
Microsoft ® Windows Script Host Version 5.7
Copyright © Microsoft Corporation. All rights reserved.
Name: Windows Server®, ServerStandard edition
Description: Windows Operating System - Windows Server®, VOLUME_KMS_B channel
Partial Product Key: xxxxx
License Status: Licensed
Key Management Service is enabled on this machine
Current count: 2
Listening on Port: 1688
DNS publishing enabled
KMS priority: Normal
Key Management Service cumulative requests received from clients
Total requests received: 5
Failed requests received: 0
Requests with License Status Unlicensed: 0
Requests with License Status Licensed: 0
Requests with License Status Initial grace period: 5
Requests with License Status License expired or Hardware out of tolerance: 0
Requests with License Status Non-genuine grace period: 0
Requests with License Status Notification: 0
```

Remember, you will not start activating windows machines until your *Current Count* is 25

You can also check the status of the server with the VAMT - see above

KMS Current Count not Increasing

After you have imaged up a few machines, you may find that the current count on your KMS host is not increasing. You can check the current count by running the following command from an elevated prompt on the KMS host:

c:windowssystem32cscript slmgr.vbs /dlv

If this shows a lower current count than you expect, you may find that you have duplicate CMID's on your client machines. This will usually happen if you used the <SkipRearm>1</SkipRearm> setting in your unattend.xml file during sysprep on your "master" client.

You can check this by looking in the event veiwer on your KMS host - the Key Management Service log in the Applications and Services Logs - Look for event 12290 and check the Details tab. The CMID for the client trying to activate is the second-to-last line.

There is a Microsoft KB article here: support.microsoft.com/kb/929829 but this states that you can use the slmgr.vbs /dlv command on the client. If the client is not activating against the KMS server, the section of the output that displays the CMID does not appear - you have to use the event veiwer on the KMS host instead.

Manually Activate Office 2010

To manually activate Office via your KMS - instead of waiting for it to do it automatically - Run this script from an elevated command prompt:

c:Program Files (x86)Mircosoft OfficeOffice 14cscript OSPP.vbs /act

Rearm Office 2010 Installation

If, during your imaging buildng process, you ran any Office 2010 program - such as Word - You will have created an installation ID for that Office install. I found that when you sysrep the image, and in particualr when you use the /generalize switch, it does not remove the Office installation ID.

If you have run an Office product, you can rearm the installation by running the followng

program (from an elevated prompt):

c:Program Files (x86)Common FilesMicrosoft SharedOfficeSoftwareProtectionPlatformosppprearm.exe

References

http://www.thewindowsclub.com/troubleshooting-windows-7-activation-states

http://www.granths.com.au/edwiki/index.php?title=KMS

http://www.windows-noob.com/forums/index.php?/topic/649-how-can-i-setup-a-kms-server/

http://technet.microsoft.com/en-us/library/ee624350.aspx