Technical white paper

HP FAQ for Microsoft OEM licensing—Windows Server

Licensing FAQ for Windows Server OEM products on HP ProLiant servers

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Welcome to HP's FAQ document for Windows® Server OEM OS products and Microsoft® OEM application solutions on HP ProLiant servers. This guide answers many of the questions our customers ask about licensing Windows Server products on their HP ProLiant server systems. The questions we encounter mostly center on three general categories; products, activation, and support—which we've used as the structure of this document.

We will review basic Windows Server licensing and differences between license types. In addition, these topics are covered:

- Customer questions focused on "I've got an OEM license—now I need to know…"
- Activation and Support
- Microsoft Software Assurance, downgrade rights, and virtualization with OEM licensing
- Specific product questions for Active Product Families
- Client access licenses (CALs) and Remote Desktop Services (RDS) CALs
- Reseller questions

Licensing

1. What types of Windows Server licenses are available?

In general, Microsoft Server software licenses fall into three categories: volume licensing, OEM licensing, and retail licensing. Retail licenses, are generally sold pre-packaged in a box, they may be the most expensive and the most complete, and customers are usually home users or small businesses. OEM licenses are available from HP when buying a new computer, and typically offer the best price, and HP Support Services are available for your OEM license. Microsoft volume licenses are available from Microsoft licensing resellers, including HP Software Licensing and Management Solutions (SLMS) in many countries. Volume licenses generally cost more than OEM licenses, but may be purchased separately from hardware and offer additional flexibility for larger companies with more complex IT requirements. The rest of this FAQ will focus on HP OEM licenses. For additional information about Microsoft Retail or Volume Licensing, refer to microsoft.com/licensing.

2. What types of Windows Server licenses are available from HP?

The following table provides a quick comparison of the Microsoft Server license types available from HP.

Microsoft license options	From HP factory (preinstall and non-preinstall) (OEM)	From HP authorized distributor and HP Reseller Option Kit (ROK)
Who can buy?	End user or reseller	Reseller only
Terms and restrictions	HP OEM or ROK license may only be marketed and sold to an end user along with a new HP ProLiant server. End user cannot move OEM licenses from the server (unless Microsoft Software Assurance is added). Note that an HP OEM license is covered by the same HP warranty or service terms that cover the HP ProLiant server which it accompanies.	
Microsoft Software Assurance available?	Available; must be purchased separately from an authorized Microsoft licensing reseller (such as HP SLMS) within 90 days of initial license purchase. Important to highlight that only licenses for the latest version of a product are eligible for Software Assurance.	

3. What Windows Server OEM license products does HP offer?

HP offers OEM licenses for the following Windows Server products:

Operating systems
- Windows Server 2012 R2 Foundation, Essentials, Standard, and Datacenter Editions: hp.com/go/ws2012R2
- Windows Server 2012 Foundation, Essentials, Standard, and Datacenter Editions: hp.com/go/ws2012
- "Additional licenses" for Windows Server 2012 Standard—Each HP OEM license for Windows Server 2012 Standard and Windows Server 2012 R2 Standard support up to 2 physical processors and up to 2 concurrent Windows Server virtual machines (VMs). "Additional licenses" may be added to a server to support more processors and/or more concurrent VMs. Windows Server 2012 Standard Additional Licenses apply for Windows Server 2012 R2 Standard.
- "Additional licenses" for Windows Server 2012 Datacenter—Each HP OEM license for Windows Server 2012 Datacenter and Windows Server 2012 R2 Datacenter support up to 2 physical processors and an unlimited number of concurrent Windows Server VMs. "Additional licenses" may be added to a server to support more processors. Windows Server 2012 Datacenter Additional Licenses apply for Windows Server 2012 R2 Datacenter.
- Windows Server 2008 R2 Foundation, Standard, Enterprise, and Datacenter Editions: hp.com/go/ws08r2

Client Access Licenses (CALs)
- Windows Small Business Server 2011 CALs (Microsoft announced the end of sales for the OS on December 31st, 2013)
- Windows Server 2012 CALs (which also work with Windows Server 2012 R2, Windows Server 2008 R2, and Windows Server 2008)
- RDS CALs for Windows Server 2012 (which also work with Windows Server 2012 R2)
- RDS CALs for Windows Server 2008 (which also work with Windows Server 2008 R2)

4. How many CALs are included with each HP OEM Windows Server license?

CALs per license type are as follows:

- Windows Server 2012 R2 Foundation, Windows Server 2012 Foundation, and Windows Server 2008 R2 Foundation support up to 15 users, and do not require Windows Server CALs.
- Windows Server 2012 R2 Essentials and Windows Server 2012 Essentials support up to 25 users, and do not require Windows Server CALs.
- Windows Server 2012 R2 and Windows Server 2012 Standard and Datacenter Editions come with zero CALs. Windows Server 2012 CALs are available separately and are required for each user or device that accesses Windows Server 2012 R2 or earlier.
- Windows Server 2008 R2 Standard Edition comes with five Windows Server 2008 CALs. Additional Windows Server 2012 CALs (which also work with Windows Server 2008 R2) are available separately.
- Windows Server 2008 R2 Enterprise Edition comes with either 10 or 25 Windows Server 2008 CALs, depending on the kit. Look for "10 CAL" or "25 CAL" in the description. Additional Windows Server 2012 CALs are available separately.
- Windows Server 2008 R2 Datacenter Edition comes with zero CALs. Windows Server 2012 CALs are available separately.
- Windows Small Business Server 2011 Standard and Premium Add-on became end of sales on December 31st, 2013. Only Small Business Server 2011 CALs are available from HP.

5. Do all Microsoft licenses come with a certificate of authenticity (COA)?

Only OEM and Microsoft retail (Full Packaged Product [FPP]) license types come with a COA. FPP COAs are not attached to hardware; they're attached to a card or the physical packaging. OEM COAs for the OS must be adhered to the server. OEM COAs for CALs are attached to a card.

To locate your OEM OS COA, please look in the following locations: for HP ProLiant ML (tower) servers, the COA is adhered to the front bezel; for HP ProLiant BL (BladeSystem) servers, the COA is on the top of the blade (you must pull out the blade to see the COA label.); for HP ProLiant DL (rack) and SL (scale out) models, the COA label is on the side of the server—and you must pull the server out of the rack to see the COA.

If you received your OEM OS from a reseller, the COA should have been affixed to a new server by the reseller. OEM COAs are tied to the hardware with which they were purchased and cannot be transferred to another system unless you purchase Microsoft Software Assurance for the OEM license, in which case you have the same reassignment rights that apply to a Microsoft volume license for the product. Note that an OEM OS is considered part of the new server on which it is delivered, so it is covered by whatever HP warranty applies to the new server.

6. What exactly comes inside each of these kits for each license type?

Windows Server 2012 R2 Foundation, Essentials, Standard, or Datacenter Editions
- 1 COA (that should be adhered to the server) with 1 25-digit ("5x5") product key to "activate" the OS installation
- 1 HP-branded x64 DVD (black and white)

Windows Server 2012 Foundation Edition
- 1 COA (that should be adhered to the server) with 1 25-digit ("5x5") product key to "activate" the OS installation
- 1 HP-branded x64 DVD (black and white)

Windows Server 2012 Essentials Edition
- 1 COA (that should be adhered to the server) with 1 product key
- 1 HP-branded x64 DVD (black and white)

Windows Server 2012 Standard Edition
- 1 COA (that should be adhered to the server) with 2 product keys: one for activating a "physical" installation, and one for activating "VM" installation(s)
- 1 HP-branded x64 DVD (black and white)

Windows Server 2012 Datacenter Edition
- 1 COA (that should be adhered to the server) with 1 "physical" product key and 1 "virtual" product key
- 1 HP-branded x64 DVD (black and white)

Windows Server 2012 Standard or Datacenter Additional License
- 1 SACOA (that is adhered to a card) with 1 keyless tracking id

Windows Server 2008 R2 Foundation Edition
- 1 COA (that should be adhered to the server) with 1 product key
- 1 HP-branded x64 DVD (blue and white)

Windows Server 2008 R2 Standard Edition
- 1 COA (that should be adhered to the server) with 1 "physical" product key and 1 "virtual" product key
- 1 HP-branded x64 DVD (blue and white)

Windows Server 2008 R2 Enterprise Edition
- 1 COA (that should be adhered to the server) with 1 "physical" product key and 1 "virtual" product key
- 1 HP-branded x64 DVD (blue and white)

Windows Server 2008 R2 Datacenter Edition
- 1 COA (that should be adhered to the server) with 1 "physical" product key and 1 "virtual" product key
- 1 HP-branded x64 DVD (blue and white)

7. How does HP deliver these OEM licenses?

HP offers preinstalled configurations from our online stores, via our channel partners, and through our direct sales team. Non-preinstalled OEM licenses (also referred to as "drop-in-box" licenses) are available with new ProLiant servers for customers choosing do-it-yourself installations. These licenses are offered online and via our channel partners.

The ROK is available only to resellers from HP authorized distributors. This kit provides the value of an HP OEM license for the customer, along with the additional services and/or products that most HP channel partners offer to our customers.

Differences between license types

8. How can I tell the difference between an HP OEM license and a Microsoft Channel OEM (COEM) license?

Microsoft sells a COEM, or "System Builder," license to resellers globally. This product warranty is not supported by HP, but rather by Microsoft.

One visible difference between HP OEM and COEM products is that the COA label is different: Figure 1 shows that the product name will be either "Microsoft" for COEM products or "HP" for HP OEM products. HP OEM products have HP artwork on the media. The COA label has HP printed on it.

HP ROK is the very same Windows Server operating system you would get directly from Microsoft. However, through our OEM agreement with Microsoft, HP is able to customize and optimized Windows Server specifically for ProLiant servers and is BIOS-locked to ensure it can only be installed on ProLiant servers.

When you choose the HP OEM branded version, HP includes free electronic or telephone support incident for initial setup for 90 days from the date of purchase. If the label reads "Microsoft," HP will provide its normal warranty support for the server but would charge for software support.

For more information, check the Microsoft website: microsoft.com/howtotell

Figure 1. Windows Server 2012 Standard Edition—HP OEM license
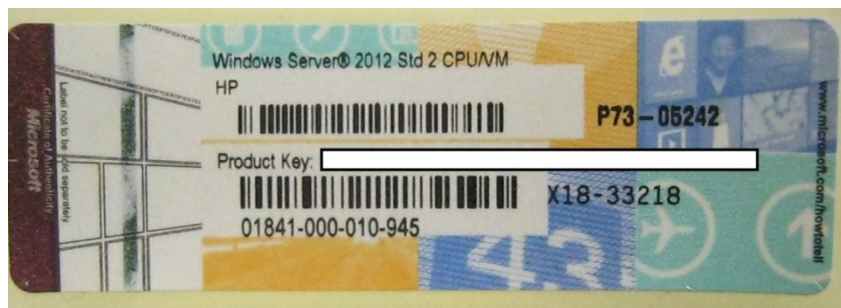
I've got an OEM license—now I need to know…

9. Where will I find the latest, beta, and older drivers?

The HP ProLiant Windows matrix (hp.com/go/wincert) provides direct links to drivers and other downloadables.

Just click on the server and you will be provided with the links. To find out more, visit the HP website.

In addition, the web pages for Microsoft on HP ProLiant servers listed here provide links to all documentation, downloads, and products:

hp.com/go/ws2012r2

hp.com/go/ws2012

hp.com/go/ws2008r2

hp.com/go/sql2014

10. My server was dead on arrival (DOA). I purchased an OEM Windows Server license from HP with the server—what do I do?

The HP OEM license is effectively part of your server, so it is covered by the same warranty terms. If, for example, you end up requiring a replacement server under warranty, the replacement server will also come with the same HP OEM license (and the original HP OEM license would go back to HP when you return the DOA server).

11. What do I do if I have damaged media DVDs?

HP will help you get your replacement media via the HP Call Center (see question 34). Prior to calling, please check question 6 to see if you have the correct number of DVDs for your edition.

12. What do I do if I lose my COA?

Your COA is the most important part of your OEM license. It is the primary "proof of purchase" that the server includes a genuine Microsoft OEM license should you ever choose to transfer ownership of the server. It is also the only place you will find your unique 5x5 product key(s), which is used to activate your Windows Server OS license. If you lose your COA, neither Microsoft nor HP can replace the COA or its product key(s). Therefore, HP strongly recommends that you keep a record of the 5x5 product key from your COA on file, ideally by saving a high-resolution digital picture of the COA.

13. What do I do if I experience a defective on arrival or damaged or missing COA label?

If you purchased the server with a defective/damaged/missing COA directly from HP, please contact the HP Call Center; see question 34 for assistance. Please act during your 90-day warranty period to receive the best assistance with your defective product issue.

If the product was purchased from a reseller (ROK), please contact your reseller for assistance. Note that your reseller can access the HP Call Center if needed.

If HP is assisting you with the issue, the HP support analyst will probably ask you to email a high-resolution digital picture of the defective or damaged label for investigation. The picture should have a clear image of the COA serial number and what there is of the product key. In rare cases, the HP support analyst may ask you to remove and return the defective/damaged COA, in which case they will instruct you how to do that.

14. Can I convert an evaluation copy of Windows Server 2012 to fully licensed product?

Yes, first verify the OS current installation; run from an elevated command prompt: **DISM /online /Get-CurrentEdition** (current edition will typically include the word eval along with the normal product name)

Run **DISM /online /Get-TargetEditions** (The results should show the products the current installation can be converted/upgraded to)

Run **DISM /online /Set-Edition:<edition ID> /ProductKey:XXXXX-XXXXX-XXXXX-XXXXX-XXXXX /AcceptEula** (For the edition, type in what was returned in the Get-CurrentEdition command. The command will set the edition type, inject the appropriate product key, and accept the EULA in a single command. Server will reboot.)

15. Can I transfer my OEM license to another server?

If you think you will want to be able to do this, then you may acquire that right—plus other benefits—by purchasing Microsoft Software Assurance from a Microsoft licensing resellers (such as HP SLMS throughout the world) within 90 days of your original purchase of the HP OEM license. It is important to note that only licenses for the latest version of a product are eligible for SA. Otherwise, you may not move an OEM license to another server. Microsoft OEM licensing (including COEM, HP OEM, and other OEM licensing) is part of the server on which it was issued, as explained in the license terms that accompany the license. For example, here is what the Windows Server 2012 License Terms state:

Assignment of the required number of licenses to the server—The software license is permanently assigned to the server with which you acquired the software. That server is the licensed server for such license. You may not assign the same license to more than one server. A hardware partition or blade is considered to be a separate server.

16. Can OEM product licenses be transferred to another organization?

Per the license terms accompanying your HP OEM license, "You may transfer the software only with the licensed server, all Certificate of Authenticity label(s), any additional licenses included with the server and this agreement, directly to a third party. Before any permitted transfer, the other party must agree that this agreement applies to the transfer and use of the software. You may not retain any instances of the software unless you also retain another license for the software."

17. If I "retire" a server with an OEM license on it, can I use that software on a new server?

No. To put it simply, an OEM product is "married" to the original server on which it was installed. OEM licenses are not transferable from one machine to another, unless covered by Microsoft Software Assurance. The software cannot be moved from server to server, even if the original server it was installed on is no longer in use. This is true for all OEM software— both OSEs and applications. Note that OEM CALs are different: they must be associated with a single user or device, but the license owner may change that assignment if, for example, an employee or device is replaced.

18. What ProLiant Support Packs (PSPs) and HP SmartStart work with which Windows OS?

PSPs are end of life (EOL) as of June 2012 and HP SmartStart is also EOL and was delivered only on G7 and earlier HP ProLiant ML and DL 300, 500, and 700 series servers and on enclosures for HP ProLiant BL G7 and earlier servers. SmartStart has been replaced by HP Intelligent Provisioning (hp.com/go/intelligentprovisioning) for HP ProLiant Gen8 servers. HP Intelligent Provisioning (HP IP) provides a server provisioning tool that eliminates media and time-consuming effort and all needed drivers and software tools are pre-loaded onto ProLiant Gen8 servers. HP IP recognizes if system software is out-of-date and automatically downloads the latest version updates direct from the Internet.

19. Where can I find drivers and firmware for my Windows-based server?

Drivers and firmware are found in two places:

- Drivers and firmware listed by OS version are loaded in the HP Support Center (HP SC) at hp.com/go/hpsc for each server and option, and are listed as "Support and Drivers" in right-hand navigation bars.
- The SPP, which is a comprehensive collection of firmware packages for servers, controllers, storage, blades, and enclosures, as well as system software components (drivers, agents, and utilities), is all tested together as a bundled set for an extended cycle. HP SUM deploys all of these firmware and software components. The SPP contains the features, functionality, and contents of the former HP Smart Update Firmware DVD and the PSPs, and has an extensive portal containing all the valuable information you will need to make an informed decision.
  - More information can be found at this link for HP SPP at hp.com/go/spp.
  - It is available for download at hp.com/go/spp/download.
  - Extensive server support guides exist at its documentation page at hp.com/go/spp/documentation.

20. How is Windows Server 2003 supported; for example, is it included in the SPP?

Windows Server 2003 is not supported in the SPP, and Microsoft has discontinued its hardware certification program for Windows Server 2003. Microsoft originally sent out certification discontinuation notices to server manufacturers on December 31, 2009, and then extended certification to July 13, 2010, which was well before the SPP timeframe. In addition, Windows Server 2003 has been on extended support from Microsoft since July 2010, and Microsoft will end all support for Windows Server 2003 in July 2015. Details on Microsoft's discontinuation of hardware certification for Windows Server 2003 can be found at the following Microsoft website: microsoft.com/whdc/whql/resources/news/whqlnews_020210.htm. Details about Microsoft support lifecycle for Windows Server 2003 or other Microsoft software products may be found at microsoft.com/lifecycle.
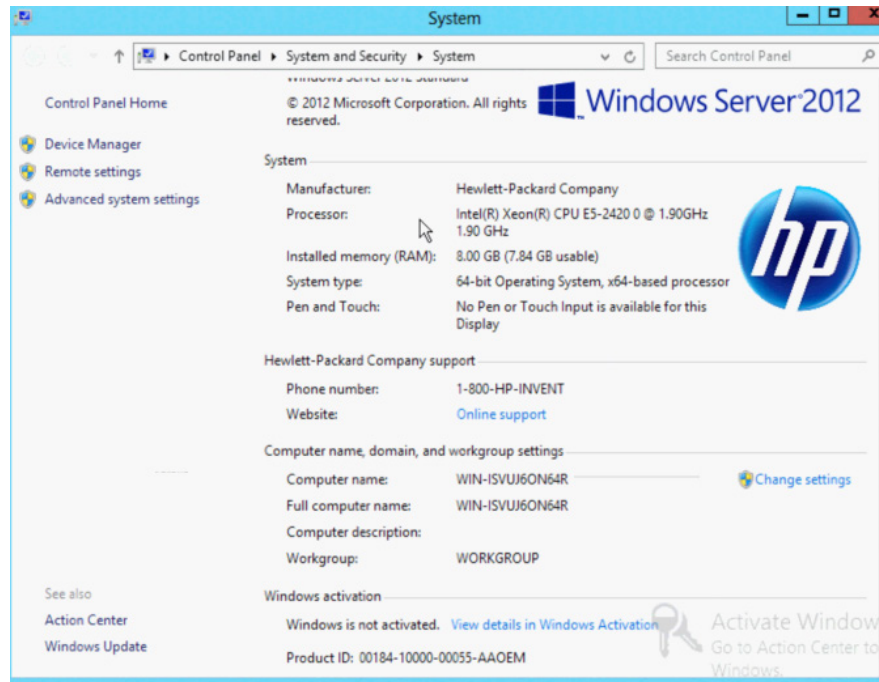
Activation

21. How do I activate Windows Server 2012?

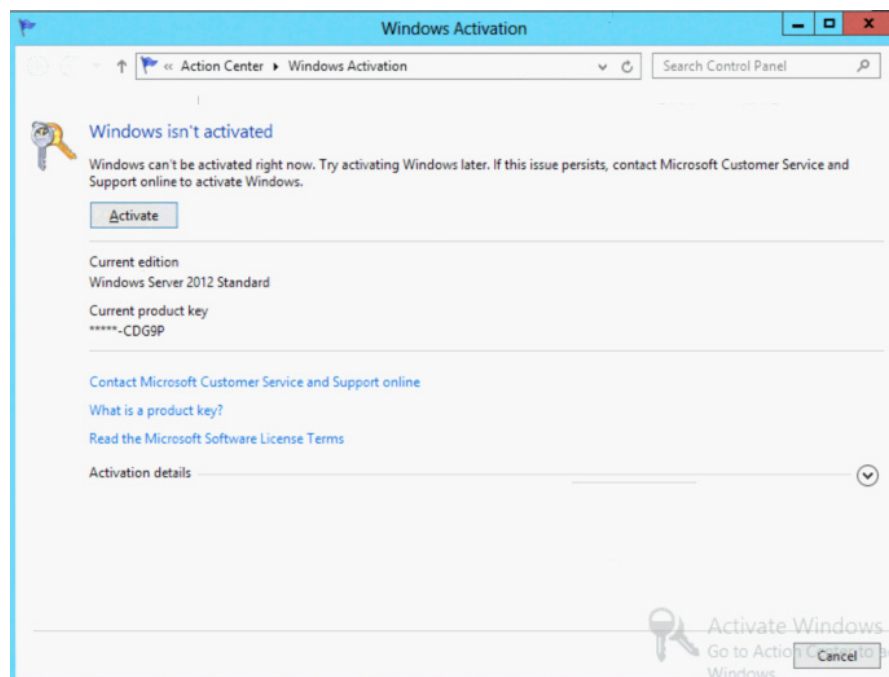To activate the current key installed into the OS:

Right-click **Computer**.

Click **Properties**.

Click **View details in Windows Activation**.
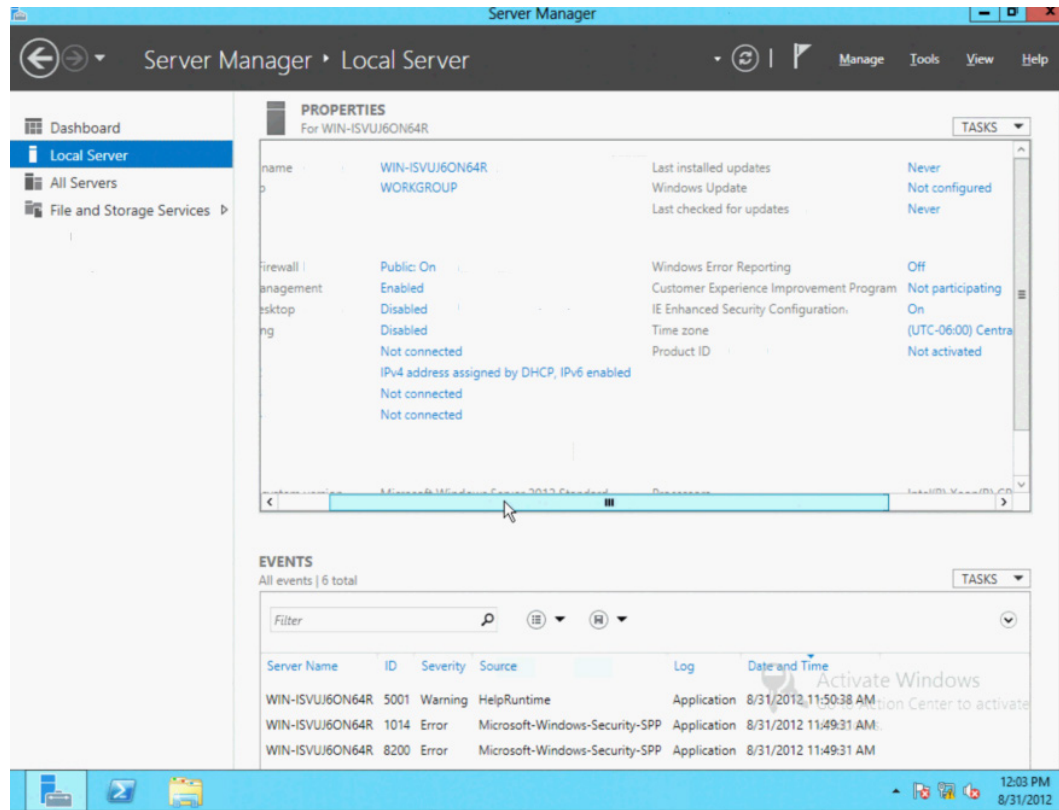

Click **Activate**.

To activate a different key (from COA label):

Click **Windows Server Manager** in the bottom left-hand corner of the screen.

On the Server Manager dashboard, click **local server**.

In the right-hand column, click on **Not activated** next to the product key.

Type in the product key and click **Activate**.

22. How do I activate my HP OEM license with Intelligent Provisioning?

If you are installing HP-branded media using HP Intelligent Provisioning, choose the OS family that has "HP-branded." This will allow the OS installation to preactivate. If activation is still needed, then the key can be provided during the Microsoft activation process. The key will be the one attached to the server.

For more information on HP Intelligent Provisioning, visit this site: hp.com/go/intelligentprovisioning.
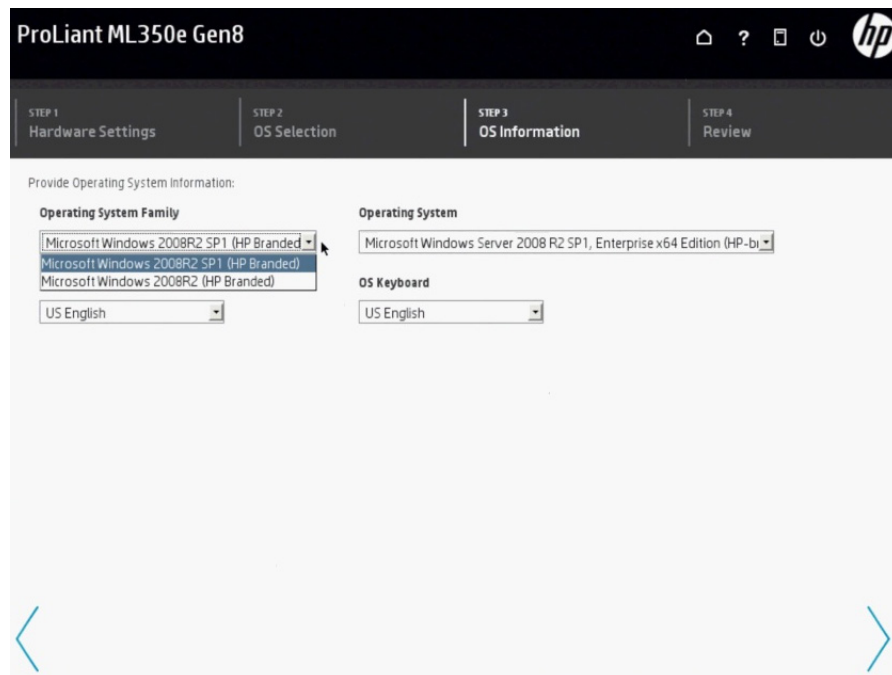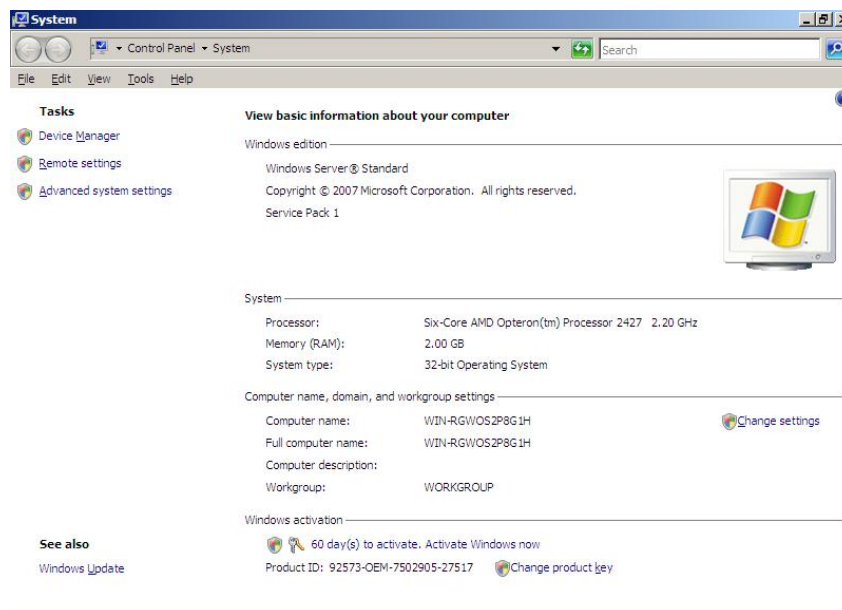

23. If HP Intelligent Provisioning was not used to preactivate my OEM OS, then how do I activate it using the product's user interface?

Windows Server 2008 R2:

To get to the Windows activation screen, right-click **Computer**. Then click **Properties**. Depending on the OS version, the screens you then see will resemble these.

Click **Activate Windows now**.
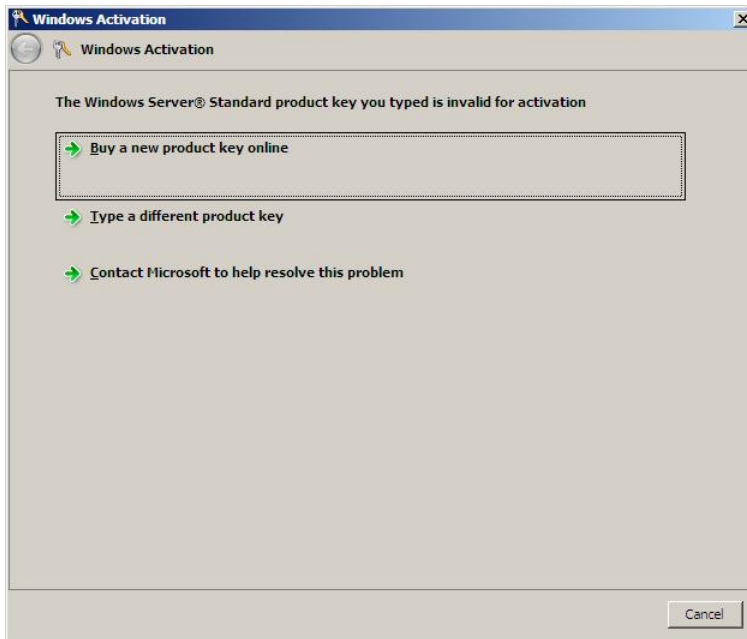
This brings up the Windows activation screen. From this screen, choose **Type a different product key**. (This is found on the COA label that should be adhered to your server.)
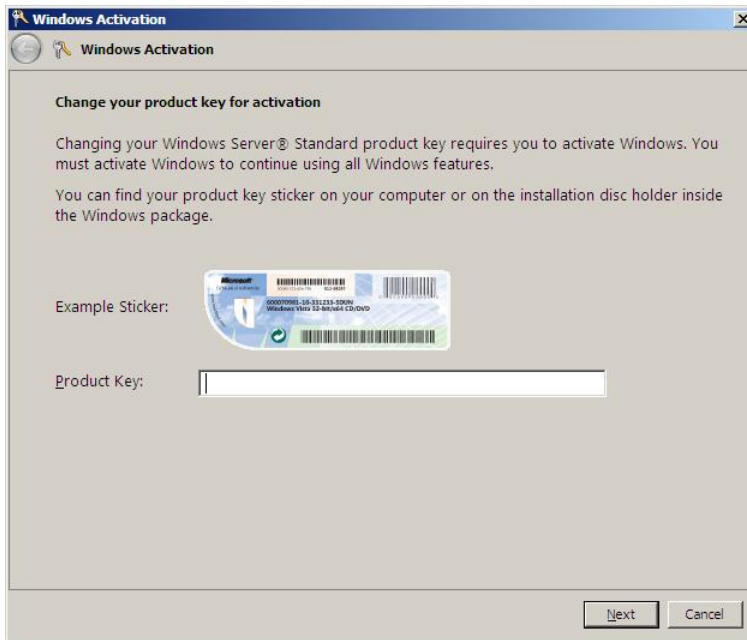
Type in your product key and follow the prompts. Your license should then be activated.

Windows Server 2012:

- Open **Windows Server Manager** by clicking the icon in the bottom left-hand corner of the taskbar.

- On the Windows Server Manager screen, click **local server**.

- In the right-hand column, click on **Not activated** next to the product key.

In the Windows activation box, type in the product key. (This is found on the COA label that should be adhered to your server.) Then click **Activate**.
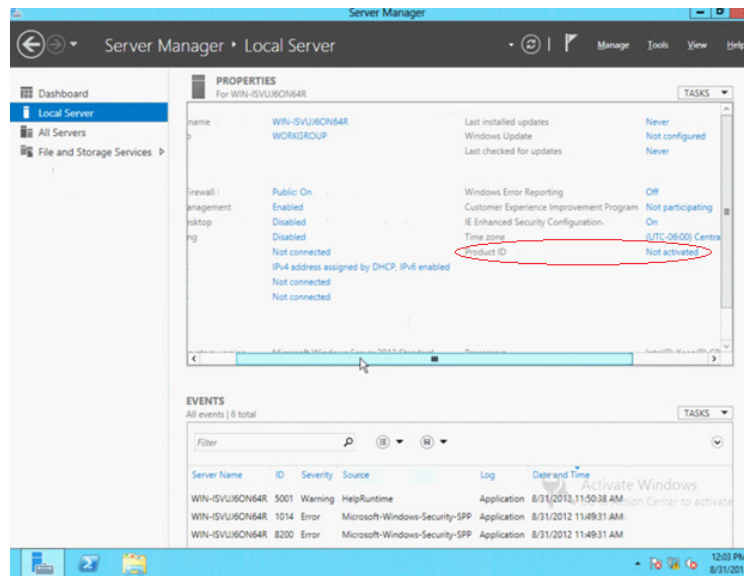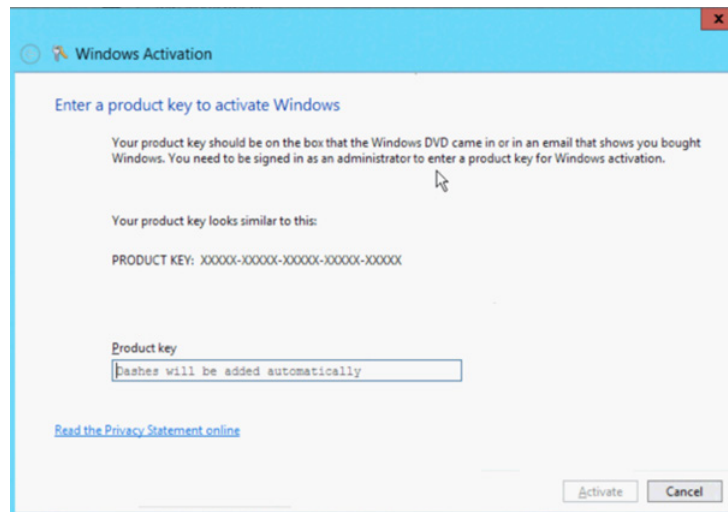

24. What is my password set to for Windows Server 2008 R2, Windows Server 2012, or Windows Server 2012 R2?

If you have purchased Windows Server 2008 R2, Windows Server 2012, or Windows Server 2012 R2 preinstalled, you will be required to provide a password during the initial interview process. If you installed Windows Server 2008 R2, Windows Server 2012, or Windows Server 2012 R2 from media, then you are required to provide a password before your first logon. Please set a password that is easy for you to remember, but hard for a stranger to figure out. The best passwords are at least eight characters long and include a mix of letters, numbers, and special characters.

25. When do I activate my license?

Generally, Windows Server purchased directly from HP in the form of a preinstalled or non-preinstalled option is preactivated and prepopulated with the product key. Typically, the Reseller Option Kit (ROK) for Windows Server purchased from your reseller will be activated by your reseller during installation. If not, it must be activated by providing your 5x5 product key from the HP OEM COA attached to the Server as described in <u>questions 21 to 23</u>.

26. What do I do if my activation grace period is running out and I am having trouble activating my product key?

Windows Server 2012 and Windows Server 2012 R2 no longer have an activation grace period. You need to provide a valid product key for the Windows Server you are attempting to install during setup/out-of-box-experience, and the OS will automatically try to activate the product key. If the activation attempt fails (no Internet connection or invalid product key), the OS will simply continue to prompt the user for activation including the option to provide a different product key.

Any version of Windows Server 2008 R2 software will require activation within 10 days. The 10-day activation period can be reset up to four times by running the slmgr.vbs script to reset it back to 10 days. To do this, follow these steps:

1. Click **Start**, and then click **Command Prompt**.
2. Type slmgr.vbs -dli, and then press **Enter** to check the current status of your activation period.
3. To reset the activation period, type slmgr.vbs –rearm, and then press **Enter**.
4. Restart the computer.

This procedure resets the activation period to 10 days, and can be used up to four times. After this, you will need to either activate or reinstall the product key.

27. What do I do if I am having trouble activating my OS installation?

Make sure the product you are trying to activate is the same product as what is listed on the COA label. If the product being activated is the same as what is on the COA label, then follow the steps below to manually inject the product key and proceed through the activation process again.

Note
Internet connection is recommended.

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1. Either use the run selection from the start programs menu or open a command window.
2. Type: slmgr.vbs /ipk XXXXX-XXXXX-XXXXX-XXXXX-XXXXX (the "5x5" product key from the COA label attached to the server).
3. It will take the OS up to 30 seconds to respond, saying that the product key was successfully inserted.
4. Then go through the activation process again and choose **Activate**. No need to click **Type a different product key**, as it was already manually injected in the previous steps.

28. What do I do if the manual product key injection process does not result in my Windows Server 2008 R2 product being activated?

If for some reason, the OS still requires activation after you follow the manual product key injection and activation process, then follow the steps below:

1. Run the Microsoft Diagnostics Tool, as it will dump information from the OS that gives details on what might be going on with the activation process as well as information on the key being used. The tool can be downloaded from the Microsoft website and must be run within the OS. Go to <u>go.microsoft.com/fwlink/?linkid=52012</u> to download the WGA Diagnostic tool.
2. Capture a high-resolution picture of the COA label.

3. Call HP Support and provide the picture of the COA label as well as the results of the Microsoft Diagnostics Tool.

4. HP will then work to help resolve the issue.

29. What do I do if the manual product key injection process does not result in my Windows Server 2012 or Windows Server 2012 R2 being activated?

If for some reason the OS still requires activation after you followed the manual product key injection process, then follow the steps below:

1. Make sure you are logged on with an administrator account.

2. Press the Windows key on your keyboard.

3. Type "cmd" (There is no window as there is in the Windows Server 2008 R2 Start menu—just start typing, and the search function will pick up automatically.).

4. Select the "Command Prompt" tile from the search results displayed on the desktop.

5. In the Command Prompt window, type (without the quotation marks): "licensingdiag.exe –report %userprofile%\desktop\report.txt –log %userprofile%\desktop\repfiles.cab" + Enter.

6. Capture a high-resolution picture of the COA label.

7. Call HP Support and provide the picture of the COA label as well as the report.txt and repfiles.cab that have been generated on your desktop compressed into a *.zip archive.

8. HP will then work to help resolve the issue.

30. I can't find the phone activation wizard under Windows Server 2012 R2, how do I activate via the phone?

The phone activation wizard can be launched by running "SLUI -4". This will bring up the phone activation wizard and provide country specific phone numbers.

31. What is AVMA?

AVMA is Automatic Virtual Machine Activation. It is a feature found in Windows Server 2012 R2 Datacenter that allows VMs to be automatically activated when the host OS has been activated. For the process to work correctly, the host must be Windows Server 2012 R2 Datacenter and the AVMA keys found on the Microsoft TechNet site must be used for the applicable guest OS installations.

Support

32. What type of warranty support does HP provide for HP OEM Windows Server products?

HP's only warranty obligations with respect to software distributed by HP under the HP brand name are set forth in the applicable end-user license or program license agreement provided with that software. If the removable media on which HP distributes the software proves to be defective in materials or workmanship within 90 days of purchase, your sole remedy shall be to return the removable media to HP for replacement.

HP also provides electronic or telephone support for initial setup for 90 days from date of purchase.

Initial setup support includes:

• Answering installation questions (how-to, first steps, and prerequisites)

• Setting up and configuring software and options supplied or purchased with HP hardware products (how-to and first steps)

• Interpreting system error messages

• Isolating system problems

• Obtaining support pack information or updates for software purchased or supplied with HP hardware products

Initial setup support does not include assistance with:

- Generation or diagnosis of user-generated programs or source codes
- Installation of non-HP products
- System optimization, customization, and network configuration

HP ProLiant Global Limited Warranty and Technical Support Terms can be found at:
h18004.www1.hp.com/products/servers/platforms/warranty/index.html

33. What type of support services does HP provide beyond warranty support?

HP has a full range of support and consulting services for your product that can be purchased locally. However, some support and related products may not be available in all countries. For information on availability and cost of these services, refer to the HP website at: hp.com/services/microsoft.

34. How do I contact HP about support for my Windows Server product?

You can locate the phone number for the nearest HP support team or HP Call Center via the worldwide contact numbers (welcome.hp.com/country/us/en/wwcontact_us.html). Follow the prompts for service for your ProLiant Server.

35. What information do I need to have available when I contact HP for support?

Be sure to have the following information/documentation available before you call:

- Proof of purchase (to be sent via fax or email)
  - An invoice with software and server SKUs (HP or distributor SKU)
  - A high-resolution picture of the COA affixed to the server showing the 5x5 product key

Note

If proof of purchase is not readily available, be prepared to provide the type of Windows product being requested—include the edition, plus the HP server type, model, and serial number.

36. What do I do if I lose my COA (Certificate of Authenticity)?

Windows Server OEM COAs are treated like any other software product. If you lose the COA, neither HP nor Microsoft replaces it. Please refer to question 12 for more detail.

37. I've lost my media for my Windows Server OS. How can I get a replacement?

You will need to go to the following website to request replacement media go to hp.com/go/wsdowngrade. A media kit for replacement may only be requested from HP for a Windows Server license purchased from HP or an HP authorized reseller. HP is able to send replacement media kits for all Windows Server 2003 R2 and later versions. The kit will not include license keys. Media replacement kits are shipped from the U.S, so please allow 1-2 weeks for delivery (depending on customs requirements and shipping method). Upon order fulfillment, you will receive an email with shipment tracking number and expected delivery details.

38. I downloaded and installed a "time bomb" trial version of a Microsoft Server OS. It's telling me to buy the software. Can I install an OEM software license?

Only if you already purchased the OEM license when you purchased the server, otherwise, no. An OEM license may only be acquired in conjunction with a new computer. If you already have your computer, then you may either buy a retail license or purchase a volume license from an authorized licensing reseller such as HP SLMS.

In case you do have the OEM license, you can follow the procedure on question 14 to convert the evaluation copy to a fully licensed product.

Microsoft Software Assurance

39. What is the Microsoft Software Assurance program?

Information about Microsoft Software Assurance may be found at the Microsoft licensing website at microsoft.com/sa.

OEM customers can purchase a Microsoft Software Assurance subscription from a Microsoft authorized licensing reseller such as HP SLMS within 90 days of their OEM license purchase. Software Assurance is only available for the latest version of a product.

Software Assurance has many details for purchase depending on program customer qualifies based on volume and commitment. For more information, please visit the Microsoft site microsoft.com/sa or the Software Assurance FAQ at microsoft.com/licensing/software-assurance/faq.aspx.

40. If my older version of Windows Server is covered under a current Microsoft Software Assurance subscription, do I have to pay to upgrade to the current version of Windows Server?

No. As part of Microsoft Software Assurance benefits, you will receive the rights to upgrade your Windows Server license to a successor version released during the term of your Microsoft Software Assurance license. Microsoft Software Assurance licensees should access the Microsoft Volume Licensing Service Center (VLSC) for full details of their Microsoft Software Assurance benefits.

41. What happens if I have a license for an older version of Windows Server and want to upgrade to the latest version but have not purchased Microsoft Software Assurance for the license?

You need to purchase a new Windows Server license for each server that you will be upgrading. Unlike service packs and feature packs, each new release of Windows Server is a full OS and requires a new server license. Software Assurance is not available for previous versions of Windows Server; Software Assurance is only available for the latest version of a product.

Downgrade rights

42. What are my downgrade rights?

Many Microsoft software products include the right to use an earlier version of the software in place of the version you licensed. For information on the downgrade rights for your Microsoft product, refer to the end-user license terms of your Microsoft software license. Additional information about downgrade rights may be available at the Microsoft website for each product family (microsoft.com/oem/en/licensing/sblicensing/pages/downgrade_rights.aspx).

43. How do the downgrade terms affect CALs?

CALs permit access to the corresponding version or earlier versions of server software (including earlier versions used under downgrade rights).

CALs for Windows Server and for Small Business Server 2008 or later do not require a product key or activation. However, RDS CALs do require activation of the license on the RDS license server.

RDS CAL product keys must match the version of the OS they are installed on. You can activate RDS CALs on a downgrade version of Windows Server by calling Terminal Services (TS) Clearinghouse and obtaining a downgrade RDS CAL key (refer to RDS downgrade rights). To contact the Registration Authority and Clearinghouse in the U.S., call (888) 571-2048. To access the Registration Authority and Clearinghouse from outside the U.S., follow these steps:

1. Click **Start**, point to **Programs**, click **Administrative Tools**, and then click **Remote Desktop Services Licensing**.
2. In the Remote Desktop Services Licensing console, right-click your license server, and then click **Properties**.
3. Click **Connection Method**, and then click **Telephone**.
4. Click the appropriate country, and then click **OK**.
5. On the **Action** menu, click **Install Licenses**, and then click **Next**.
6. Call the appropriate Customer Service Center by using the telephone number that is displayed.
7. Click **Cancel** to exit the Remote Desktop Services Licensing console.

44. What are the activation requirements for the downgrade scenario?

For Microsoft products that require activation, if you are using a previous version under downgrade rights, you will need to activate it with a valid product key for that downgrade version. As noted in the end-user license terms for your software license, neither Microsoft nor HP are obligated to provide you with downgrade media or product keys. In general, when customers are exercising downgrade rights, they reuse the product key from a previously obtained license to activate the downgrade version. If automatic activation fails when doing this, the customer will be prompted to phone a Microsoft Activation Center. When they explain to the Activation Center analyst that they are reusing a key under downgrade rights, the analyst will assist them to activate the downgrade version.

Alternatively, if using an HP OEM license for Windows Server, HP may be able to provide media and a product key for a downgrade version on request from the HP OEM customer. Either contact an HP Call Center to request the media or go to the HP website at hp.com/go/wsdowngrade. The media kit will be shipped from the U.S., so allow 3 to 10 business days for delivery (depending on customs requirements and shipping method). The kit will not include your license keys. The kit will provide instructions on how to obtain your product keys.

45. What is HP's policy on support for downgrade assistance?

While the end-user license terms may allow customers to downgrade their Windows Server OS, the HP server must be certified to support the older OS. The OS support matrix should be used to determine certification status (hp.com/go/wincert).

Customers who choose to downgrade their Windows OEM OS to a certified platform are entitled to 90 days of support warranty under the terms of their platform warranty for installation, configuration, and startup support, just as they would under the original OS warranty. The same support rules apply for customers who purchase software support beyond the 90-day warranty period.

46. Can you downgrade Windows Server Foundation?

The Microsoft Software License Terms for Windows Server 2012 R2 Foundation and Windows Server 2012 R2 Essentials provide downgrade rights to prior versions. However, the OEM Downgrade program does not offer downgrade keys or media from Microsoft. Since both of these products are "first servers", the anticipated demand is low for downgrades, and therefore it is not in the OEM downgrade program deliverables.

47. Why did HP stop offering Windows Server 2003 R2 downgrades?

By contract with Microsoft, HP and all OEMs are required to end the Windows Server 2003 R2 downgrade distribution as of March 31, 2011. In addition, end of sales for Windows Server 2003 R2 by any OEM was December 31, 2009. Certification of any new server for Windows Server 2003 R2 ended by Microsoft on July 13, 2010. Therefore, if you believe you need the older OS by exercising your downgrade rights, make sure you are aware of HP's hardware support; visit hp.com/go/wincert.

Also, if you believe that you need 32-bit support, the downgraded version isn't the only option; check out the recently updated information at the "x64 computing website" at msdn.microsoft.com/en-us/library/aa384249(v=vs85).aspx for full details and a technical drill-down on the Microsoft Developer Network (MSDN) site. The article is called "Running 32-bit applications."

48. How do I downgrade my HP Windows OEM Server OS to an earlier version?

HP OEM licensed customers who wish to exercise rights for the downgrade from Windows Server to a downgraded Windows Server have the following options: (Read more)

Option 1—Obtain the downgrade kit at the time of purchase of the new HP OEM Windows Server product where available. The downgrade kit part numbers are available for all of our HP license options—preinstall, non-preinstall, and the ROK. The requirements are that your customer must purchase a new HP server, a new HP OEM Windows Server license, and a new HP Windows Server downgrade kit on the same order. The product keys for the Windows Server downgrade kit must be obtained by following the HP process. There is a Read Me First card or a product key card with the downgrade product keys attached. Remember, the new Windows Server product keys will not activate the Windows Server downgrade kit. Please request your keys by email, on the Web, or by fax. HP will send you a kit with the requested keys in the media kit.

Option 1 is available from HP for Windows Server customers only. For large volume orders, please work with your HP representative. The HP kit is available worldwide.

Option 2— Obtain the downgrade kit after the initial HP OEM Windows Server product purchase by going to the HP website at hp.com/go/wsdowngrade. The HP kit requires the customer to provide one of the following items to show that the kit is an HP OEM license—a photo of the HP COA showing the physical 5x5 Windows Server product key or a copy of the customer's invoice with the newly purchased HP Windows Server product on the order. At this time, all OEMs have been given the rights to offer recovery and downgrade media kits for Windows Server 2008 and 2008 R2 until December 31, 2014 (note that this date is subject to change per Microsoft requirements).

For Windows Server 2008 R2 Datacenter Editions, there is a Microsoft Knowledge Base article #949748, dated March 19, 2008, titled "Description of the changes that were made to the product activation process for Windows Server 2008 in a virtual operating system environment." The article includes a virtual key that lets you activate multiple instances of Windows Server 2008 in virtual environments, providing better support for the license terms that enable you to perform the following functions:

• Create and store any number of instances of Windows Server 2008 (depending on the edition)

• Run multiple instances of Windows Server 2008 in a virtual OS environment at the same time

The following table lists the number of instances per license that you can run at the same time in a virtual OS environment within a physical server.

Windows Server 2008	Virtual OS environment instances
Standard	1
Enterprise	4
Datacenter	Any number
Itanium®	Any number

Upgrade rights

49. Why does HP OEM media not support upgrade installation, while Microsoft media does?

Unlike Microsoft media, where the customer may already have a server running on an old version of Windows Server, OEM media can only be sold with new servers, so the assumption is that there is no upgrade. Because of that assumption, HP has disabled the upgrade function. If a customer wants to upgrade to a new version of Windows Server, then the new version will need to be reinstalled.

50. I bought Windows Server Standard from HP with my new HP ProLiant server, but I really meant to buy Windows Server Datacenter. Can I do an upgrade?

Unfortunately, Microsoft does not offer an in-place upgrade between editions of Windows Server. If you noticed your error as soon as you made it, please contact HP for a return.

As soon as you get the Datacenter license, you can follow procedure on question 65 to convert the installation from Standard to Datacenter.

Virtualization and OEM licensing

51. Why do I get a "system not supported" message when trying to install HP OEM Windows Server 2008 R2, Windows Server 2012, or Windows Server 2012 R2 media on top of Microsoft Hyper-V when it is running on a non-HP-branded host OS?

The necessary manufacturer strings have not been inserted into the Hyper-V product to allow the installation of HP-branded media. You will need to run the following command from the command prompt (including spaces):

Reg Add "HKLM\SOFTWARE\Microsoft\Windows NT\CurrentVersion\Virtualization" /v BiosLockString /t REG_SZ /d "Hewlett-Packard"

52. Why do I get a "system not supported" message when I try to install HP OEM media on top of VMware?

To allow the HP OEM media to detect that it's being installed on HP hardware, you will need to add the following configuration line to the VM configuration file:

"SMBIOS.reflecthost=TRUE"

53. Can Microsoft Windows Server be installed within a VMware environment?

Yes. See your VMware documentation or refer to the VMware Knowledge Base.

54. How do OS licensing rules for VMware vMotion, Windows Server Clustering Services, and the Microsoft System Center Virtual Machine Manager differ?

Refer to each product's online documentation and license terms for details. The following answer is specific to licensing for Windows Server in virtualized environments. Note that the licensing terms for Windows Server in virtualization deployments are the same regardless of which hypervisor is used to manage the VMs.

Similar licensing rules apply to both Windows Server Clustering Services and VMotion, and System Center Virtual Machine Manager. While VMotion and System Center Virtual Machine Manager move instances of virtual operating system environments (OSEs) between physical servers, the Windows Server licenses are assigned to physical servers and remain with the physical server to which they were assigned. When an instance is moved to a new physical server, that new server

must already have appropriate licenses assigned to it. Because Windows Server Datacenter Edition permits an unlimited number of instances of the server software to run in virtual OSEs, in multiserver installations with VMotion, and with System Center Virtual Machine Manager, it offers you the greatest flexibility to move instances between servers without having to track the number of instances running or needing to worry about being under licensed.

55. Can you virtualize a SQL Server?

SQL is an application that runs on top of the OS. If you are able to virtualize the OS, then the SQL application will run on top of that OS. There are no additional technical requirements to run SQL in a virtual environment. The latest hypervisors can virtualize databases without complication. However, each SQL Server license includes specific rights for use in virtualized environments. Refer the end-user license terms of your licensed version of SQL Server for details.

56. Can you use Citrix® XenServer with an HP OEM license for Windows Server?

Yes. You can use Citrix XenServer with an HP OEM license according to the Citrix documentation, pages 11–12:

Installing a VM from ROK (BIOS-locked) media
To allow installation of ROK (BIOS-locked) OEM versions of Windows onto a VM running on a XenServer host, the BIOS strings of the VM will need to be copied from the host with which the ROK media was supplied. To install the BIOS-locked media that came with your host, you will need to follow the steps below:

Installing a BIOS-locked VM
1. Run the vm-install copy-bios-strings-from command and specify the host-uuid as the host from which the strings should be copied (that is, the host that the media was supplied with):

    xe vm-install copy-bios-strings-from=<host uuid> \

    template=<template name> sr-name-label=<name of sr> \

    new-name-label=<name for new VM>

    This returns the UUID of the newly created VM. For example:

    xe vm-install copy-bios-strings-from=46dd2d13-5aee-40b8-ae2c-95786ef4 \

    template="CentOS 5.3" sr-name-label=Local\ storage \

    new-name-label=newcentos

    7cd98710-bf56-2045-48b7-e4ae219799db

2. If the relevant BIOS strings from the host have been successfully copied into the VM, the command "This vm-is-BIOS-customized" will confirm this:

    xe vm-is-bios-customized uuid=<VM uuid>

    For example:

    xe vm-is-bios-customized \

    uuid=7cd98710-bf56-2045-48b7-e4ae219799db

    This vm-is-BIOS-customized.

Note
When you start the VM, it will be started on the physical host from which you copied the BIOS strings.

A VM can be:

• BIOS-generic: The VM has generic XenServer BIOS strings.

• BIOS-customized: The VM has a copy of the BIOS strings of a particular host in the pool.

• Without BIOS strings: Immediately after its creation.

Warning

It is your responsibility to comply with any EULAs governing the use of any BIOS-locked OSs that you install.

Release notes

There are many versions and variations of Windows with different levels of support for the features provided by XenServer. This section lists notes and errata for the known differences. support.citrix.com/servlet/KbServlet/download/23830-102-645654/guest.pdf

57. How many physical/virtual installations can I have with the various versions of the OS?

OS version	Physical OSE	Virtual OSE
Windows Server 2012 Standard R2	1	2 per license or "additional license"
Windows Server 2012 Datacenter R2	1	Unlimited
Windows Server 2012 Standard	1	2 per license or "additional license"
Windows Server 2012 Datacenter	1	Unlimited
Windows Server 2008 R2 Standard	1	1
Windows Server 2008 R2 Enterprise	1	4
Windows Server 2008 R2 Datacenter	1	Unlimited

58. Can I buy two HP OEM Windows Server 2008 R2 Standard Edition licenses for one physical server, with the intention of running them each in a VM (non-Microsoft VM)?

Yes. Microsoft licensing (FPP, OEM, and VL) allows this.

Standard Edition for Windows Server 2012 and Windows Server 2012 R2

59. Is there any difference in the code between the Standard and Datacenter Editions of Windows Server 2012 or Windows Server 2012 R2?

No. They are identical other than the product name and branding. It's the "unlimited virtualization" licensing that offers significant additional value in Datacenter.

60. What are the differences in licensing for Windows Server Standard vs. Datacenter Editions?

Datacenter permits unlimited virtualization and the base license supports up to two CPUs.

The Standard base license permits only two VMs and supports up to two CPUs.

61. What's an "additive" or "additional" license?

Microsoft's new licensing structure allows you to buy just the amount of product you need for the physical processors and VMs on a server. The Standard and Datacenter Editions of Windows Server 2012 and Windows Server 2012 R2 are licensed by physical processors, and for specific numbers of VMs running concurrently on the server. The base OEM license for Windows Server 2012 Standard or Windows Server 2012 R2 Standard supports 2 physical processors and 2 concurrent VMs.

The base OEM license for Windows Server Datacenter supports 2 physical processors, and an unlimited number of concurrent VMs. You may "stack" more than one Standard license on a server to support additional physical processors and/or concurrent VMs. Likewise; you may "stack" more than one Datacenter license on a server to support additional physical processors. When buying "stacked" OEM licenses direct from HP, HP will fulfill the second and subsequent licenses with an "additive" or "additional" license, which does not include redundant media.

62. How do I calculate the number of Windows Server licenses I need for a server solution?

For the Datacenter Edition of Windows Server 2012 or Windows Server 2012 R2, simply divide the number of physical processors by 2 (round up), and that is the number of licenses you need since each Datacenter license supports 2 physical processors and an unlimited number of concurrent VMs.

For the Standard Edition of Windows Server 2012 or Windows Server 2012 R2, the number of licenses you will need depends on the number of physical processors on the server and the maximum number of virtual server instances you will be running concurrently. The larger of these two numbers determines the number of total licenses required. Each license covers up to two physical processors and 2 concurrent VMs, and you can "stack" as many licenses on the server as needed to cover the physical processors and concurrent VMs. However, note that Windows Server 2012 Datacenter and Windows Server 2012 R2 Datacenter permit an unlimited number of VMs, so only "stack" Standard licenses for VM density if the total cost is less than licensing Datacenter. For example:

- You have a 2-processor server: 2 physical processors/2 (number of processors covered by a license) equals 1.
  You will need one license to cover a 2-processor server.
- You have a 4-processor server: 4 physical processors/2 (number of processors covered by a license) equals 2.
  You will need two licenses to cover a 4-processor server.
- You have an 8-processor server: 8 physical processors/2 (number of processors covered by a license) equals 4.
  You will need four licenses to cover an 8-processor server.

Your pricing for Standard and Datacenter licenses may vary from this guideline, but in general Datacenter costs less if you will ever need to run near 10 or more concurrent VMs for each 2 physical processors on a server.

63. How do I activate an additive license?

There is no product key with additive licenses. Instead, the customer reuses the product key from the base license to activate the additional OS environments. Each Windows Server 2012 or Windows Server 2012 R2 product key may be used to automatically activate a limited number of OS environments. If automatic activation fails, the user is prompted to phone a Microsoft Activation Center. When they explain to the Activation Center analyst that they are reusing a base license product key to activate VMs covered by additive licenses, the Activation Center analyst will assist them in activating the VM.

64. Does an OEM license for Windows Server 2012 Standard Edition or Windows Server 2012 R2 Standard Edition come with CALs?

No. As of Windows Server 2012 and onwards, OEM licensing has been aligned to Microsoft Volume Licensing, in that CALs are purchased separately. This assures that each customer can purchase only and exactly the number of CALs they need.

65. I accidentally installed Windows Server 2012 Standard, but wanted Datacenter. Can I convert the installation to Datacenter?

Yes, you can convert Standard Server installation over to Datacenter. As long as you have bought Datacenter OS license.

First verify the OS currently installed; run from an elevated command prompt: **DISM /online /Get-CurrentEdition** (current edition should show ServerStandard)

Run **DISM /online /Get-TargetEditions** (The results should show ServerDataCenter as the edition capable of upgrading to)

Run **DISM /online /Set-Edition:<edition ID> /ProductKey:XXXXX-XXXXX-XXXXX-XXXXX-XXXXX /AcceptEula** (For the edition type in what was returned in the Get-CurrentEdition command. It should show ServerDataCenter as the target edition. The command will set the edition type, inject the appropriate product key, and accept the Eula in a single command. Server will reboot.)

Datacenter Edition for Windows Server 2012 and Windows Server 2012 R2

66. When does it make sense to get Windows Server Datacenter vs. Standard Edition?

It depends on your needs, but a rule of thumb is that if you think you might ever need to run near 10 or more concurrent Windows Server VMs on a server, then Datacenter, with its unlimited virtualization rights, is the best choice.

67. What is the maximum CPU support that Windows Server Datacenter Edition has?

Both the Standard and Datacenter Editions of Windows Server 2012 and Windows Server 2012 R2 have the same capacity limits: up to 320 logical processors per physical server, and up to 64 virtual CPUs per VM.

68. Does Windows Server Datacenter Edition come with CALs?

No. Customers must purchase CALs separately.

69. I installed Server 2012 Datacenter, but I want Server 2012 Standard. Can I convert the current installation from Server Standard to Server Datacenter?

No, you can't convert from Datacenter to Standard. A fresh installation is required.

Windows Server 2008 R2 Datacenter Edition

70. Are Windows Server Datacenter Edition licenses required per installed processor or per socket present in the server?

Licenses are required per installed processor.

71. Can I buy a 2-CPU license on HP ProLiant 4 CPU server with two processors installed and purchase an additional 2-CPU license when I install the second and third CPUs?

HP doesn't offer post-sale for additional licenses, they should be purchased at the same time as the base OS license with the ProLiant Server, Customers must purchase additional licenses directly from Microsoft to support additional processors.

72. Can you buy a 2-CPU license and "divide" the license between two servers?

No.

73. How many CALs are included in the HP OEM Datacenter Edition?

Zero.

Server Manager in Windows Server 2012 and Windows Server 2012 R2

74. Can I manage my small IT environment with Windows Server 2012 or Windows Server 2012 R2?

Yes. Customers with smaller IT environments (25–49 PCs) can leverage the integrated management solutions within Windows Server 2012 and Windows Server 2012 R2 to manage and maintain an IT environment. This is an ideal option for midsize customers looking for HP Insight with Microsoft System Center Essentials 2010 that is no longer available from HP.

75. Can I manage advanced virtualization environments with Windows Server 2012 or Windows Server 2012 R2?

Customers who wish to manage a more advanced virtualization environment can purchase Microsoft System Center 2012 and deploy key capabilities and functionality as needed (for example, Configuration Manager, Operations Manager, Virtual Machine Manager, Data Protection Manager, and others), in addition to Windows Server 2012 and Windows Server 2012 R2 integrated management solutions.

Customers with the largest and most sophisticated midsize business customers (50–500 PCs), or those wishing to manage a more advanced virtualization environment, can leverage the combined value of integrated management solutions delivered with System Center 2012 and Windows Server 2012 or Windows Server 2012 R2.

76. What new management capabilities are delivered in Windows Server 2012?

Windows Server 2012 delivers new and more powerful management capabilities—such as Share Nothing Live Migration and Inbox Replication (Hyper-V Replica)—that make it easier to manage and maintain the IT infrastructure while delivering great customer value.

Client access licenses

77. What is a CAL?

A CAL is a license granting access to certain Microsoft server software. CALs are used in conjunction with Microsoft server software licenses to allow users and devices to access and utilize the services of that server software. For instance, a company looking to use Windows Server would acquire a Windows Server license to install and run the Windows Server software on the physical server itself. To provide the rights for users or devices to access the Windows Server software running on the server, Windows Server CALs would need to be acquired for those users or devices.

78. What are the different types of CALs?

There are two types of CALs:

• Device CALs—Acquire an access license for every device (used by any user) make the most economical and administrative sense for an organization that has multiple users for one device, such as shift workers.

• User CALs—Acquire an access license for every named user accessing your servers (from any device). User CALs make the most economical and administrative sense for an organization with many roaming employees who need access to the corporate network from unknown devices, and/or employees who access the network via multiple devices—that is, if the number of users is less than the number of devices, then this is the more economical choice.

For TS CALs or RDS CALs differences, see <u>questions 97</u> and <u>questions 99</u>.

79. Is it possible to buy additional CALS after I got the OS License?

Yes, customers can buy additional CALs from HP or an authorized partner without any attached ProLiant server purchase requirement. HP currently offers 5, 10, and 50 CAL packs (user or device) and single CALs are also available. To see the different types of CALs, see question 78.

80. Can I use my Windows Server 2008 CALs to access Windows Server 2008 R2?

Yes, since CAL versions are not updated for an "R2" release.

81. If a user or device accesses a server running Windows Server 2008 but is authenticating via a third-party authentication application (non-Microsoft based authentication), does the user or device still require a Windows Server 2008 CAL?

Yes. If the user or device is authenticating by any means to a server running Windows Server 2008, a Windows Server 2008 CAL is needed.

82. Can I use a Windows device CAL and a Windows user CAL to access the same server? Also, can I use a RDS device CAL and a RDS user CAL on the same terminal server?

Yes. Windows device and user CALs, as well as RDS device and user CALs, can be used on the same server.

83. I have some extra Windows Server 2003 CALs that are not being used. Can I apply these to servers running Windows Server 2008 R2?

No. CALs must be the same version as—or higher than—the server software they are accessing. In other words, users or devices accessing a server running Windows Server 2008 R2 must have Windows Server 2008 CALs.

84. If I move an instance of Windows Server 2003 to run as a virtual instance on a server with Windows Server 2008 R2 Enterprise Edition running in the physical OS environment, can I use Windows Server 2003 CALs to access the virtual instance of Windows Server 2003?

No. Because the virtual instance of Windows Server 2003 runs on a Windows Server 2008 R2 license, the user or device accessing the virtual instance of Windows Server 2003 needs a Windows Server 2008 CAL.

85. I have some extra Windows Server 2008 CALs that are not being used. Can I apply these to servers running Windows Server 2012?

No. CALs must be the same version as—or higher than—the server software they are accessing. In other words, users or devices accessing a server running Windows Server 2012 must have Windows Server 2012 CALs.

86. If I move an instance of Windows Server 2008 R2 to run as a virtual instance on a server with Windows Server 2012 running in the physical OS environment, can I use Windows Server 2008 CALs to access the virtual instance of Windows Server 2008 R2?

No, the best way to go is to acquire CALs for the newest OS generation, as those should cover access to VMs of older Windows Server generations as well.

87. Can I use a Windows Server 2012 user CAL to access a server running Windows Server 2003?

Yes. A Windows Server CAL permits access to all earlier versions of Windows Server.

88. Do I need to upgrade my Windows Server CALs to access future releases of Windows Server?

All future releases of Windows Server will require Windows Server CALs of the same version for the customer's internal users and devices accessing the Windows software. Customers can either acquire new Windows Server CALs when the new version is released, or maintain Microsoft Software Assurance on their prior-version CALs, which gives the rights to the next version.

89. I have Microsoft Software Assurance for my CALs. Can I switch between user and device CALs?

Volume licensing customers may switch from one to the other when they renew their Microsoft Software Assurance. You must designate your CALs as device or user when you upgrade them.

90. Will I be allowed to switch between Windows Server 2008 device CALs and user CALs? What about TS CALs or RDS CALs?

If your Windows CALs are covered under Microsoft Software Assurance, you can convert those Windows CALs from device CALs to user CALs, or vice versa, when you renew your Microsoft Software Assurance. If your Windows CALs are not covered under Microsoft Software Assurance, you may not switch. Your choice is permanent. This also applies to TS-CALs and RDS CALs.

91. Are CALs required for Windows Web Server 2008 R2?

No. Windows Web Server 2008 R2 is licensed by a server license only and no CALs are required. However, when Windows Web Server 2008 and Windows Web Server 2008 R2 are used as a scale-out front end for applications running on back-end servers, Windows Server CALs may still be required on these back-end servers running Windows Server.

92. What is the difference between a Windows Server 2008 R2 license and a Windows CAL? Why do I need both?

The Windows Server 2008 R2 license gives the license holder the right to install and use the server software. The Windows CAL grants the right for a device or user to access the server software. The two-component license provides a low entry price and a way to pay for capacity used: the more devices or users accessing the server software, the greater the license fees or price. The model therefore offers license affordability to organizations of all sizes.

93. Are the five CALs that come with my purchase of the HP Windows Server 2008 R2 license designated on a per-user or per-device basis?

For these first five CALs, you get to choose—that is, you can designate whether those CALs are user or device CALs.

For any additional CALs you acquire after that, you purchase the type (user or device) of CAL you desire.

94. Can I split a CAL pack into user and device CALs?

Windows Server 2008 R2 comes with a 5 Pack of CALs included. This initial 5 pack can be split into user and device CALs. For any additional CALs you require, you must purchase the specific type of CAL (user or device) that is needed. Additional CAL packs cannot be split up. In the case that you need less than five devices or user CALs, Microsoft has introduced single CALs to address this concern. With single CALs, you can purchase exactly what you need.

Windows Server 2012 and Windows Server 2012 R2 do not include any CALs by default; they need to be purchased separately as needed. HP currently offers 5, 10, and 50 CAL packs (user or device) which cannot be split up, single CALs are also available.

95. Is each CAL "tied" to a specific user or device?

Yes. They are not "floating" licenses and so they must be assigned to specific users or devices. If a user leaves the company or a device is retired, then the CAL can be reassigned.

96. What do I do if I lose my CAL?

Windows Server CALs are not "enforced" by software and product keys, so the only value of the CAL Pack COAs is as the customer's "proof of purchase." The customer's invoice may serve the same purpose, so there is no need to replace the CAL Pack COA. TS/RDS CAL usage, however, is enforced. The license key found with the TS/RDS CAL pack must be entered into TS/RDS licensing manager within the OS. TS/RDS CALs can't be replaced, so treat them as if they are money. Refer to question 97 for a brief explanation of the differences between Windows CALs and TS CALs. So essentially, CALs must follow an honor system (exceptions are TS and RDS CALs).

Remote Desktop Services CALs

97. What is the difference between a Windows CAL and RDS CALs?

A Windows CAL is required when a user or device is directly or indirectly accessing a Windows Server. An RDS CAL is also required if the user or device is accessing or using the terminal server functionality of Windows Server Standard, Datacenter, and Enterprise Editions. As an exception to these rules, up to two users or devices may access the server software only for server administration purposes, without requiring either an RDS CAL or a Windows CAL (note that in Windows Server 2008 R2, TS CALs are being renamed "RDS CALs").

98. What do you need to do if you want to downgrade your RDS CALs or a TS CAL?

To downgrade TS/RDS CALs to Windows Server 2003 R2, call the TS Clearinghouse and obtain Windows Server 2003 TS CAL key (refer to TS downgrade rights):

• In the U.S., call (888) 571-2048.
• Outside the U.S., click **Start**, point to Programs, click **Administrative Tools**, and then click **Terminal Services Licensing**.
• In the Terminal Services Licensing console, right-click your license server, and then click **Properties**.
• Click **Connection Method**, and then click **Telephone**.
• Click the appropriate country, and then click **OK**.
• On the Action menu, click **Install Licenses**, and then click **Next**.
• Call the appropriate customer service center using the telephone number that is displayed.
• Click **Cancel** to exit the Terminal Services Licensing console.

99. What is the difference between a Windows Server 2008 TS CAL and a Windows Server 2008 R2 RDS CAL?

For Windows Server 2008 and Windows Server 2008 R2, there is no difference—a Windows Server 2008 TS CAL can be activated on a Windows Server 2008 R2 RDS License Server, and a Windows Server 2008 R2 RDS CAL can be activated on a Windows Server 2008 TS License Server.

100. How do I move a TS license to a new server?

If you want to move TS licensing from an existing TS license server to another computer, follow these general steps:

1. A. Document the configuration of your existing license server and your TS licensing environment, including such information as:
   - The number and type of TS CALs that are installed on the license server
   - How the terminal servers are configured to discover (contact) the license server
   - TS CAL purchase agreement documentation

2. Determine the new computer on which you want to install the TS Licensing Role Service. For more information, see Checklist: TS Licensing Installation Prerequisites.

3. Install the TS Licensing Role Service on the new computer. For more information, see Install the TS Licensing Role Service.

4. Activate the new license server. For more information, see Activate a Terminal Services License Server.

5. Install the same number and type of TS CALs on the new license server that were installed on the previous license server. To do this, you must call the Microsoft Clearinghouse. When you call the Microsoft Clearinghouse, make sure that you have your TS CAL purchase agreement documentation readily available to facilitate the reissuance of the TS CALs. For more information, see Locate the Microsoft Clearinghouse Telephone Number for Your Country or Region.

6. Verify that the terminal servers in your environment can discover (contact) the new license server. To see which license servers a terminal server can discover, use Licensing Diagnosis in the TS Configuration Tool. For information about Licensing Diagnosis, see the topic "Identify Possible Licensing Problems for the Terminal Server" in the Windows Server 2008 TS Configuration Help.

Note

A client that received a TS CAL from the previous license server will continue normal operation until its TS CAL expires. When the previously issued TS CAL expires, the terminal server will request a new TS CAL from the new license server on behalf of the client.

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7. After you have confirmed that the terminal servers in your environment can discover (contact) the new license server, deactivate the previous license server. For more information, see Deactivate a Terminal Services License Server.

8. Uninstall (remove) the TS Licensing Role Service from the previous license server. For more information, see Uninstall the TS Licensing Role Service.

For more information about moving, upgrading, or migrating to a Windows Server 2008 TS license server, see the TS page on the Windows Server 2008 TechCenter. (go.microsoft.com/fwlink/?LinkId=73931). For additional information, visit:

- Managing TS Licensing
- Microsoft Clearinghouse

Locating the Microsoft Clearinghouse telephone number for your country or region. To locate the Microsoft Clearinghouse telephone number when the license server is activated:

1. Click **Start**, point to Administrative Tools, point to Terminal Services, and then click **TS Licensing Manager**.

2. Select the license server. On the View menu, click **Properties**.

3. On the Connection Method tab, in the Connection Method list, select Telephone.

4. In the Select Country or Region list, select your country or region, and then click **OK**.

5. On the Action menu, click **Install Licenses**, and then click **Next**.

6. The Microsoft Clearinghouse telephone number for your country or region is displayed. Write down the telephone number, and then click **Cancel**. For additional information, visit technet.microsoft.com/en-us/library/cc754677(WS.10).aspx.

Deactivating a TS license server: You might need to deactivate a TS license server when the certificate of the server has expired or becomes corrupted, or when the server is being redeployed. When you deactivate a TS license server, the license

server will not be able to issue permanent TS per-device CALs to additional clients until the license server is activated again. However, a deactivated license server is able to issue TS per-user CALs and temporary TS per-device CALs.

You can deactivate a license server by using one of the following methods:

- Deactivate a Terminal Services License Server Automatically
- Deactivate a Terminal Services License Server by Using the Telephone

You cannot deactivate a TS license server using the Web browser connection method. For additional information, visit Managing TS Licensing.

Reseller information

101. I'm a reseller and I'd like to know the difference between COEM and HP OEM.

The COEM product is what is often referred to by Microsoft as System Builder or Channel OEM. Microsoft is the point of contact for the purchase of this license type for resellers who want to marry the license to a white box server. The customer may not transfer the license to another server unless they have purchased Microsoft Software Assurance within the first 90 days of purchase of the license. Microsoft Software Assurance is only available for the latest version of a product.

The HP OEM products are designed and tested for HP servers, providing you and your customers with confidence in deploying the ideal combination of OS and HP ProLiant server. With the HP OEM versions, your customers will also receive 90-day free telephone support from the purchase date of the new server and license.

102. I'm a reseller. How can I learn more about the HP ROK?

For more information on HP OEM ROK, go to hp.com/go/rok.

103. Do the purchases of both HP OEM (factory integrated option) and HP OEM ROK option count towards my HP x86 server and Microsoft partner program goals?

Yes. HP OEM Microsoft Server licenses count toward both HP and Microsoft goal attainment partner programs.

104. I'm a reseller. I've heard about a training site from HP and Microsoft called Coffee Coaching—what is it?

HP Microsoft Coffee Coaching is a community where resellers can learn and interact with Microsoft and HP subject matter experts to become more knowledgeable on key technologies to help you better serve your customers. Become a follower on the following social media sites:

- facebook.com/CoffeeCoaching
- youtube.com/CoffeeCoaching
- twitter.com/CoffeeCoaching
- blog.com/CoffeeCoaching
- linkedIn/CoffeeCoaching

References

Visit the following websites to learn more about the subjects covered in this FAQ:

- hp.com/go/proliantwindows
- hp.com/go/ws2012r2
- hp.com/go/ws2012
- hp.com/go/ws2008r2
- hp.com/go/rok
- hp.com/go/coffeecoaching
- hp.com/go/windows/documentation
- hp.com/go/wincert
- hp.com/go/WindowsFAQ
- microsoft.com/licensing/about-licensing/client-access-license.aspx
- microsoft.com/sa
- HP ProLiant Global Limited Warranty and Technical Support Terms
  h18004.www1.hp.com/products/servers/platforms/warranty/index.html
- Microsoft Solutions Services
  hp.com/services/microsoft
- Microsoft Support Lifecycle Policy
  microsoft.com/lifecycle
- HP support for Windows Server products
  welcome.hp.com/country/us/en/wwcontact_us.html

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