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Handbook

Track Microsoft Licensing for Desktops Running Windows 8, Office 2013

Microsoft licensing for its desktop software has changed again with Windows 8 and Office 2013, and we look at the implications for editions, payments and DaaS.

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Keeping Up With Microsoft Software Licensing

MICROSOFT LICENSING SCHEMES are notorious for being complicated and ever-changing, but organizations that understand and keep track of them can save money and get what they actually need. The latest versions of the Windows operating system and the Office suite include new licensing and payment options, so we've gathered overviews of how they'll affect businesses and virtual desktops.

Consultant Paul DeGroot first looks at how Microsoft Windows licensing has changed with Windows 8, examining factors such as the number of instances, Software Assurance and remote access. He then delves into Microsoft Office licensing, which is simpler but still needed for certain non-Office software.

Finally, SearchVirtualDesktop editor Alyssa Wood talks with the CEO of a desktop hosting firm about how Microsoft licensing helps and hampers the Desktop as a Service market. Enterprises that want to pursue virtualization should pay close attention to licensing developments as well as new software editions.

EUGENE DEMAITRE

Associate Managing Editor
Data Center and Virtualization Group
TechTarget



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Microsoft Licensing Requirements Updated for Windows 8

ALTHOUGH LICENSING FOR Microsoft's Windows operating system is relatively simple for basic use, it's a different matter for businesses. Enterprise customers and desktop administrators must deal with a dizzying array of options, rules and restrictions.

First, let's cover some basic rules for Windows that continue to apply to Windows 8.

FULL LICENSES NEEDED

Unique among Microsoft products, Windows purchased with a computer from an OEM is permanently tied to the device on which it is first installed (with the exception of Germany, where this restriction has been ruled invalid). Note that a motherboard replacement will generally require purchase of another Windows license, since it is considered to be a "different" PC. Changing a hard disk, adding memory and other changes will generally not trigger a new

license requirement.

Microsoft does not sell full versions of Windows through any volume-licensing programs. An organization cannot, for example, re-image bare PCs with a volume image. Those PCs must already have a full license, purchased through retail or an OEM, before the volume-upgrade license can be applied.

Retail licenses may not be downgraded to earlier versions, but recent OEM licenses can be downgraded two versions back—Windows 7 to Windows XP, and Windows 8 to Windows Vista. Volume upgrades can be downgraded all the way back to Windows 98.

HOW MANY INSTALLS?

Microsoft has generally restricted Windows to a single installation per PC, but that changed with Windows 7 and has been modified again for Windows 8. The Windows XP



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Mode feature, which gave users of Windows 7 Professional a free Windows XP virtual machine (VM), is not available for Windows 8.

With Windows 8, no free installs are offered, but Microsoft no longer refuses your money if you want to pay for a second install. Windows 8 allows more than one copy of Windows to be installed on a physical PC—such as in one or more virtual machines—as long as each has a valid license. This change enhances the value of the Client Hyper-V feature of Windows 8, in which the OS runs in a virtual machine and not directly on the hardware.

SOFTWARE ASSURANCE

Software Assurance (SA), Microsoft's upgrade and benefits offering for standard licenses, adds to the cost of a Windows license. SA is added automatically to all licenses purchased through Enterprise Agreements and can be purchased through other agreements, as long as it is added to a Windows license on a new a PC within 90 days of purchase.

Windows has the most complicated matrix of SA benefits of any Microsoft product. Since

most customers acquire the latest version of Windows every time they buy new PCs, the primary benefit of SA—a slightly discounted upgrade to the latest version of Windows—lacks significant value. To attract annual payments from customers through <u>SA</u>, Microsoft locks other, more desirable benefits behind an SA requirement. This is particularly true for virtualization and remote access licenses.

VIRTUALIZATION AND REMOTE ACCESS

As Microsoft struggles to maintain a central place for Windows in an increasingly non-Windows-device market, a Windows license to which SA has been added has become the key to unlocking many privileges for non-PC devices. If you want to use a non-Windows device for many purposes, you need not only a Windows device, but SA as well to do it. With Windows 8, the primary user of a PC to which SA for Windows has been added can do the following:

■ Take <u>Windows To Go</u>, the right to install Windows 8 on a flash drive and boot it on any compatible device;



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- **Access** a virtual desktop infrastructure (VDI) from a Windows RT device;
- **Access** an organization's VDI from any personal or third-party device as long as the user is not on the organization's premises (roaming rights); and
- Purchase (for about \$60 a year) a <u>Companion Subscription License</u> (CSL), which lets the PC's primary user access VDI from up to four other personal devices or corporate-owned, non-Windows devices.

The list of devices licensed under a CSL does not include corporate-owned Windows devices. This prohibition has the perverse effect of promoting corporate ownership of iPads or Chromebooks rather than Windows PCs.

Microsoft's Virtual Desktop Access (VDA) subscription is still available. At about \$100 a year, it costs more than the CSL and covers only a single device. VDA confers most of SA's virtualization and remote access privileges on devices that don't have or can't economically obtain SA.

Two longstanding remote-access rights for physical machines have been continued in Windows 8. The primary user of a physical PC can access that PC from any other device. This legalizes PC-to-PC software, such as GoTo-MyPC, LogMeIn or TeamViewer. In addition, any device licensed for Windows 8 Pro can access any other physical device licensed for Windows 8 Pro.

WINDOWS ENTERPRISE

Volume license customers that purchase SA for Windows on a PC also gain access to the Windows Enterprise edition, which offers some advanced features, such as Direct Access, Branch Cache and application sideloading, which is the ability to install a custom Metro-style Windows 8 app directly on the computer, rather than publishing it through the Windows Store.

Several features that were part of Windows 7 Enterprise, notably <u>BitLocker</u> and the Multilingual User Interface, no longer require SA and Windows 8 Enterprise edition—they are now built into OEM and retail Windows 8 Pro licenses. —*Paul DeGroot*



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IN CONTRAST TO the muckle of special licenses and Software Assurance rights associated with Windows, Microsoft Office licensing is relatively simple.

Office 2013 is available through several channels, but business customers should consider licensing limitations carefully before acquiring Office through retail or OEM channels. Office purchased through these channels cannot be downgraded to an earlier version, used in a Remote Desktop Services or Citrix environment, or re-imaged by a volume copy of Office.

A single <u>Office 2013 license covers</u> any number of Office instances, including multiple versions, on one PC.

A second copy of Office can be installed on a portable PC by anyone who is the primary user of a PC licensed for a <u>volume edition</u> of Office—Office Professional Plus or Office Standard. However, this right is not available for PCs licensed via Enterprise Agreements, which

require every PC to have its own licensed copy of Office.

Office 2013 is also available as a \$12 per month subscription, Office 365 ProPlus. This is somewhat misleading given the Office 365 label. This version of Office is not a cloud-based instance of Office, but is installed conventionally on a PC.

Office 365 ProPlus can be installed on up to five devices (including one USB drive) used by one person, which can make it economical.

The first "user-licensed" version of Office, Office 365 ProPlus can be installed on up to five devices (including one USB drive) used by one person, which can make it economical in situations where one person has home and work PCs, plus another portable or two. That brings the



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DaaS Market Waits on Microsoft Windows Licensing price down to as low as \$29 per device per year. Several Office 365 plans, including Small Business, E3 and E4, include a subscription to Office ProPlus.

SOFTWARE ASSURANCE ON OFFICE

SA, which offers discounts on upgrades and other benefits, costs 29% of the license price per year and can only be added to Office at the time the original license is purchased. It adds some rights and features, including:

- The Office Multilanguage Pack, for use in multilingual environments;
- Training vouchers (based on the customer's spending);
- An inexpensive copy of Office for an employee's home use (commercial use is not permitted); and
- The right to access Office hosted on a server, running from a USB drive or in a virtual machine on any third-party device as long as

users are not on the organization's premises (Roaming Rights).

REMOTE ACCESS RIGHTS

The Primary User Right and the Licensed Device Right give users certain rights to access a physical PC running Office from a remote device. These rights are also found in Windows.

The Primary User Right allows the primary user to access Office on the licensed PC from any other device, such as enabling access to Office from a tablet via GoToMyPC. The Licensed Device Right lets anyone access Office remotely if the device is licensed for the same or a later version of Office.

This last rule is critical to businesses that access Office via Microsoft's Remote Desktop Services or Citrix. Customers can install Office on their networks for free—there's no charge to install Office on a server. However, anyone who accesses a network instance of Office needs to have an Office license (for the same or a later version) on the device in use.

This is problematic for people accessing Office from an iPad or other non-Windows device



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that is incapable of running Office. They can purchase an Office license and assign it to their device, even if they can't install it on the device, but that is a costly solution and an asset management nightmare.

Uninstalled software can't be tracked and can lead to "false overlicensing," a situation in which the organization apparently has many more available Office licenses than it is using. Installing those licenses, which have been assigned to but not installed on non-Windows devices, will lead to underlicensing.

The Office 365 ProPlus subscription can be used to access a network installation of Office from any device, not just a device with Office installed on it. That uses up one of the five allowed devices per subscription.

NON-OFFICE ALTERNATIVES

Sometimes you need to own Office so that you can use software other than Office. Microsoft has made a full license for Office a prerequisite for using Office variants on non-Windows devices. Unlike Windows, most of these do not require SA to be added to the Office license.

The primary user of a PC licensed for Office 2013 has commercial use rights for Office 365 Home and Student RT, which does not have commercial use rights by default. They're available separately for \$59.

The user also has access from any device to Office Web Apps Server, an internal server that (linked with SharePoint) offers browser-based Word, Excel, PowerPoint and OneNote. These apps duplicate the Office Web Apps found in Microsoft-hosted Office 365.

Office Web Apps Server is a particularly attractive option for mobile users because its lightweight viewing and editing capabilities may be all that most mobile users need. It requires no Windows license with SA or a substitute like the Virtual Desktop Access or Companion Subscription License. Because it runs inside the organizational firewall, no data is stored in the cloud.

A final variation on this theme is Office Mobile for iPhone and Android, which is free if you have an Office 365 subscription. Eligible subscriptions are Office 365 Home Premium and various small, midsize and enterpriseoriented Office 365 plans. —Paul DeGroot



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DESKTOP AS A Service has been around longer than you might think, but a number of hurdles have kept the promising technology from taking hold.

Today, it's mainly Windows licensing rules that prevent <u>Desktop as a Service</u> (DaaS) from really taking off, said Guise Bule, tuCloud Inc.'s CEO. TuCloud began offering on-demand hosted desktops back in 2009. Its enterprise DaaS offering can scale to hundreds of thousands of users, with a free version of its <u>DaaS</u> <u>Engine</u> for smaller deployments. It also has a community portal, where customers get activity points for engaging in the community, then cash them in to upgrade the DaaS Engine for free.

SearchVirtualDesktop spoke with Bule about the <u>problems with DaaS licensing</u> and how this market looks in 2014.

What do you think about Amazon and VMware entering the DaaS market?

It's very, very interesting. ... Amazon is taking what we call the hosted virtual desktop [HVD], and they're using [Windows] Server images. It's not Desktops as a Service. And they have to go that route because of [Windows desktop OS] licensing restrictions. ... If VMware and Desktone don't copy Amazon and deploy Windows Server 2008 R2 images, they're not going to be able to compete in that market.

At tuCloud ... we're not about building public, multi-tenant clouds. The separation of identities on these <u>multi-tenant infrastructures</u> just isn't secure. We think it's a huge accident waiting to happen. The idea of clustering tens of thousands of businesses across a massive multi-tenant cloud gives me the willies.

You have to look at [Microsoft Service Provider Licensing Agreements (<u>SPLAs</u>)]. SPLA licensing is increasing dramatically over the next three years. [*Editor's note*: Microsoft has said it



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will increase Windows Server Datacenter edition licensing by about 38% in January 2014, plus another 13% in 2015.]

What that means is, in the lead-up to Microsoft launching Mohoro, they're squeezing HVD providers out of the market. They're making it increasingly expensive to license a server as a desktop. That tells me that Mohoro isn't going to be about Windows Server desktops; they're going to deliver Windows 8.

What might that mean for how DaaS licensing will work in the future?

This is the dilemma. ... There's no way on earth Microsoft is going to skin Windows Server images to those desktops. It's their OS. You can argue that Microsoft can do whatever they want with their OS, but they'll be opening themselves up to strong legal action if they suddenly start selling desktops and keep everyone else from doing it. What Microsoft does, they have to let the rest of the world do.

The whole ecosystem that runs on Terminal Services and [Citrix] XenApp, they're holding their breath. ... [Microsoft is] getting into the DaaS business and they always have been. If

they weren't, they never would have restricted us the way they have. What they've done is slowed the market until they're ready to enter the market. [Editor's note: Microsoft has declined to comment on its plans around DaaS.]

What do you see changing in the DaaS market next year?

The idea that you can build your own DaaS cloud.

Over the next four or five years, I'd say, [there will be] lots and lots of private DaaS clouds all scattered around. In highly regulated industries, multi-tenancy is a problem. You have to do single tenancy because the cost of making a multi-tenant infrastructure that separates things enough to satisfy those regulated industries about the way they handle data is prohibitive.

Private DaaS clouds being built—that's the future of DaaS. The future should be multi-tenancy and public cloud; we're going to get there, but only once Microsoft changes the rules.

If Windows licensing gets fixed, does that mean the number of DaaS vendors will increase?



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If the licensing gets fixed, it's going to completely blow up. The biggest thing for those MSPs [managed service providers] out there looking to build a DaaS business is choosing the right architecture—architecture to scale.

If you look around at the cloud space, the big cloud players like Amazon and Google, they're not using SAN infrastructure; they're using grid distribution to achieve those economies of cloud. ... If you can't scale, you're in trouble. ... Grid distribution is the way forward. Desktone approaches that halfway, but it still relies on that SAN infrastructure. ... Commoditized hardware, no shared components—that's the model DaaS has to adopt if it's going to have a future.

Why didn't virtual desktop infrastructure pick up like people thought it would?

Ease of deployment and cost. It's too expensive because you need all the hardware for SAN. The only people who have made money in the VDI space in the past five years [are] storage providers.

The second factor is, it's really hard to configure these things. ... They need to be easier to deploy; the learning curve needs to be flatter.

[Citrix] Kaviza really led the way in that department with VDI-in-a-Box, which was revolutionary in the sense that it let nontechnical people sit down, get an ESXi server and quickly deploy desktops. We do that [appliance] model because ... you should be able to download desktops and build it on a server without any special expertise.

So is 2014 the Year of DaaS?

I've been asked this question every year since 1997. I've got one answer to it: There's never going to be a <u>Year of DaaS</u>. The idea that there's suddenly going to be a boom and plateau—that's not going to work. It's going to be a slow, gradual ascent. We're going to see the industry grow exponentially over the next 10 years.

We're not going to see that Year of DaaS until Microsoft changes the rules. ... If they don't, I'll still be happy because we're doing nothing but building private desktop clouds for our customers. ... So for me personally, it's a very sweet spot being in this space right now. I don't care at all if they change the licensing. If they do, though, I'll become a billionaire.

—Alyssa Wood



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PAUL DEGROOT is a writer, trainer, and principal consultant at Pica Communications, which specializes in Microsoft licensing strategies and policies.

ALYSSA WOOD is the site editor for SearchVirtual Desktop. Her responsibilities include editing tips and contributing editorial guides, FAQs, features and news, while keeping up with the desktop virtualization industry.



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Margie Semilof | Editorial Director

Phil Sweeney | Managing Editor

Eugene Demaitre | Associate Managing Editor

Laura Aberle | Associate Features Editor

Linda Koury | Director of Online Design

Neva Maniscalco | Graphic Designer

Rebecca Kitchens | Publisher rkitchens@techtarget.com

TechTarget 275 Grove Street, Newton, MA 02466 www.techtarget.com

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