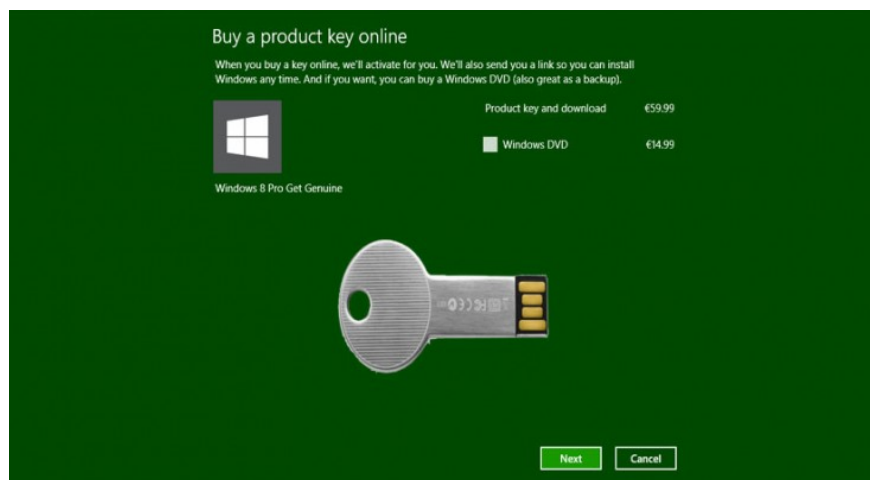


How does the Windows Product Activation (WPA) work?

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WPA forces each user to directly activate a copy of Windows to prevent unauthorized use, which expires a specific time until confirmed by Microsoft.



1. Why Activate?

Microsoft's purpose behind Activate is to limit the use of Windows operating systems on a single retail license (retail license) to be released. Any other computer running on the same license must be deducted from the use of the software. Therefore WPA requires activation of products within 30 days of installing the product to ensure that the product is genuine.

2. What does "Genuine Windows" mean?

A copy of Windows is considered "genuine" when the Product key used during the installation is 'genuine'. This means that a provided Product key is only used to install Windows on a single computer - a licensed computer is

purchased.

If these keys are used to install on another computer, this is called "piracy."

3. What exactly is the information transferred during the activate process?

When you activate your copy of Windows, you are transferring the Installation ID code to Microsoft by phone or by an Internet connection, depending on how you choose to activate.

Based on this code, the Microsoft copyright system can confirm if the version of the operating system you installed is "genuine". If the operating system version you installed is genuine, then the system will receive the Activation ID code to complete the activate process. If the activation process is done via the phone, you must enter the Activation ID manually to complete the activate process.

What information does the Installation ID contain?

Installation ID is a number of 50 characters that are "taken" from 2 data:

- 1. Product ID:** Actually taken from a 25-digit Product key (the alphanumeric value printed on the Windows CD / DVD label) is entered during the operating system installation. Product ID is used to 'identify' a copy of Windows on your computer.
- 2. Hardware ID** - This value is derived based on your computer hardware configuration.

WPA system checks 10 items on computer hardware to get a hardware ID, including:

1. Display Adapter
2. SCSI Adapter
3. IDE Adapter (effectively the motherboard)
4. Network Adapter (NIC) and its MAC address
5. Limiting RAM capacity (such as 0-64mb, 64-128mb, .)
6. Processor
7. Processor Serial Number
8. Hardware device
9. Hard Drive Volume Serial Number (VSN)
10. CD-ROM / CD-RW / DVD-ROM

Installation ID is the combination of the Product ID and Hardware ID that was last obtained and sent to Microsoft during the Activate process.

5. How is the Installation ID valid?

Installation ID must be valid to confirm that installing Windows copy is "reliable". Therefore after Microsoft receives Installation ID, Installation ID is decrypted again to get the Product key and hardware details of the computer involved in the activate process.

Now Microsoft's system will consider if this is the first time the product key is used for activate. This process occurs when the user tries to activate Windows for the first time after purchasing the product. Then Installation ID will be confirmed immediately and Activation ID will be provided to complete the activate process.

However, the Microsoft system now links this product key to the Hardware ID of the computer and stores this information on their server. Simply put, if you first use the Product key, the Product key will pair with Hardware ID and this information will be stored on Microsoft Server.

6. What happens if a computer running a "fake" Windows version tries to activate?

With non-genuine copies of Windows, whenever the activation process is performed, it will fail. This usually happens when the Product key used for installation has been used on other computers before.

The product keys are defined during activation as follows:

Whether or not the Installation ID is valid, the Microsoft system will check whether the product key has been used in the previous activate process. Then find the Hardware ID associated with the Product key.

If computers run a "fake" version of a copy of Windows, there is another hardware configuration and Hardware ID will not match. In this case the activation process will fail.

To activate successfully, must meet 1 of 2 conditions below:

1. The product key must be used for the first time, this means that the product key has not been used to activate on other computers.
2. If the Product key has been previously used, the Hardware ID must match. This only happens if the computer has been licensed to try to activate.

7. Format the hard drive

Every time the hard drive is reformat and reinstall Windows, the product key will have to be re-activated. However, the activation process will take place faster.

In this case both the product key and Hardware ID must match, the new activation process succeeds.

8. What happens if hardware upgrades or changes?

As mentioned above, there are 10 categories on hardware, ensuring at least 7 similar categories. You can only change no more than 3 categories of hardware.

If you change too much, activate will fail. In that case you will have to contact Microsoft customer care for assistance.

9. Some things that WPA can't do:

- WPA does not send any personal information to Microsoft.
- If you want to activate via phone, you do not need to provide any information to Microsoft.
- WPA does not provide facilities for Microsoft to turn off your computer or damage your data / hardware, and even cannot access your data.

Refer to some of the following articles:

1. Unlock hidden features on Windows 10 with some Registry tricks
1. Activate "God Mode" on Windows 10, 8 and 7
1. Instructions to reset Windows 10 password without using the 3rd tool

Good luck!

You finished reading the article "**How does the Windows Product Activation (WPA) work?**" edited by the [TipsMake](#) team. We hope this article has provided you with many useful tech tips and tricks. You can search for similar articles on tips and guides. Thank you for reading and for following us regularly.