

## Windows 10 data collection: What you need to know

The operating system has been collecting telemetry on users and apps since 2015; despite recent changes, it's still gathering information.

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## Windows 10 makes diagnostic data collection compulsory

Gregg Keizer, Computerworld

Microsoft has expanded its diagnostic data collection with Windows 10, making mandatory what had been a voluntary telemetry program.

Windows 10 includes a telemetry and diagnostics service that cannot be fully disabled. In earlier editions of the OS -- including Windows 7, 8 and 8.1 -- Microsoft's data gathering was optional. Users had to agree to join the "Customer Experience Improvement Program," or CEIP, for telemetry to be collected and sent to the Redmond, Wash. company from those operating systems. And if users changed their mind, they could stop it.

Microsoft kicked off CEIP with Windows Vista in late 2006. According to the [CEIP documentation](#), the data collected is used "to improve the products and features customers use most often and to help solve problems." CEIP harvests data from both Microsoft's own software, including the operating system, and from "third-party applications that interact with Microsoft products."

The broad swath of data collected by CEIP includes everything from how often the USB port on the device was used to where Web browsers were directed.

In Windows 10, the equivalent of CEIP is compulsory.

Dubbed "Feedback & diagnostics," the feature in Windows 10 and Windows 10 Pro -- the two SKUs (stock-keeping units) bundled with new devices and used by all consumers and many businesses -- is not only on by default but cannot be completely deactivated without a dangerous trip into the Windows Registry.

Feedback & diagnostics comes with three settings in Windows 10 Home and Windows 10 Pro: Basic, Enhanced and Full. The latter is the default setting, and the one that Microsoft tags as "Recommended" in the OS's settings panel.

A [FAQ](#) explains what each of those settings means, at least in general terms.

Microsoft describes Basic as collecting "data that is vital to the operation of Windows," and to prove that, requires it as a minimum before serving the device with updates via Windows Update. "But some apps and features may not work correctly or at all" with Basic, the company warns.

The other settings collect an increasing amount of data from a Windows 10 PC. Enhanced, for example, logs such things as "how frequently or how long you use certain features or apps and which apps you use most often." Meanwhile, Full switches on other data gleaning, including advanced diagnostics "that collect ... such [things] as system files or memory snapshots, which may unintentionally include parts of a document you were working on when a problem occurred."

In return for the data harvesting, Microsoft promises benefits, including "an enhanced and personalized Windows experience," although it does not define what that is.

Windows Insiders, those who have opted in to Microsoft's preview program, have their devices automatically pegged to the "Full" setting, which they cannot change.

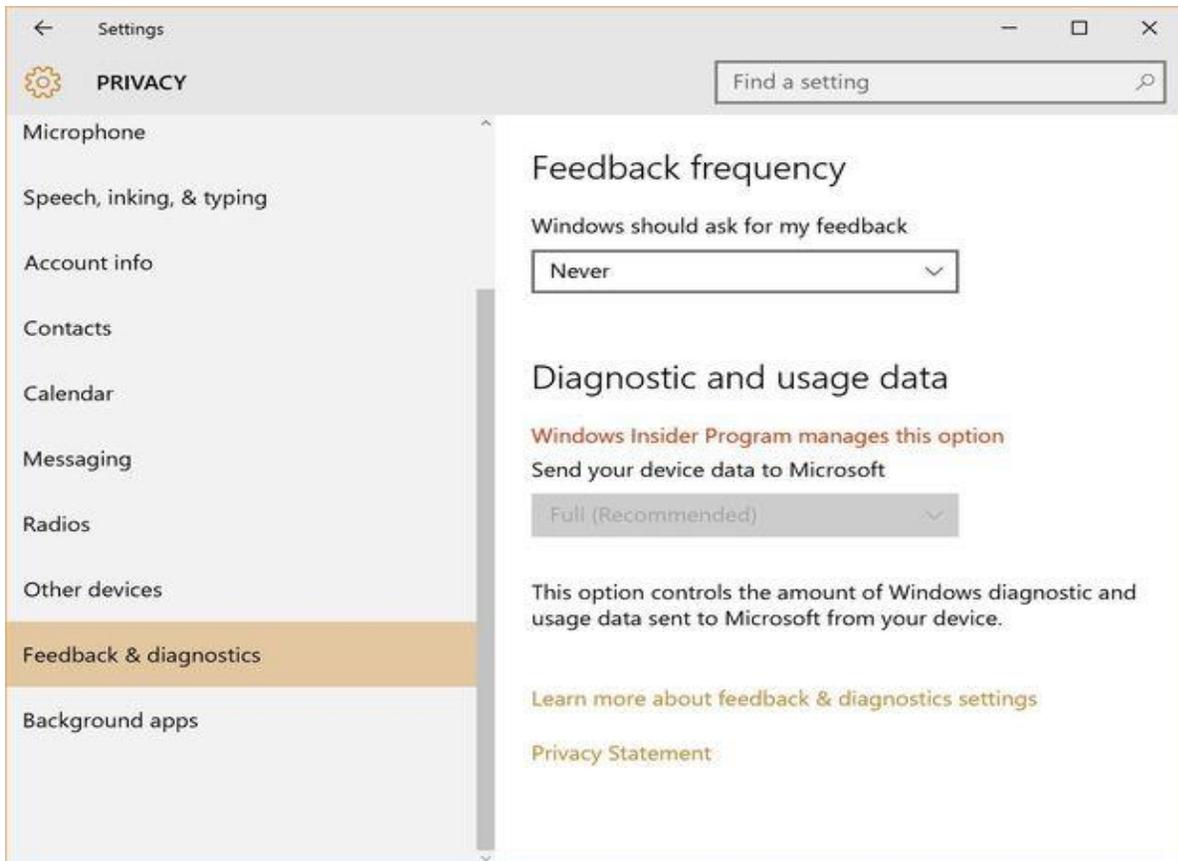
Feedback & diagnostics can be disabled by editing the Windows Registry, the finicky database where the OS stores configuration settings. Because a single mistake can corrupt the Registry enough to make the device unbootable, editing is usually done only by advanced and power users. There are several sources online for instructions on how to switch off the service; use a search string such as *disable 'Windows 10' diagnostics* to locate them.

In June, Microsoft also updated Windows 7 Service Pack 1 (SP1) and the April 2014 Windows 8.1 Update -- the supported versions of those editions -- with the same diagnostics and telemetry service used in Windows 10. In the accompanying [support document](#), Microsoft said that the new technology collected data only on systems owned by CEIP participants.

But CEIP usage is widespread in Windows 7 and 8.1: The program is enabled by default if the device owner had relied on the express settings configuration at first boot, a habit for most. Only by using the custom configuration settings were people able to deselect the data aggregation. However, users could switch off CEIP at any later time.

Microsoft took a similar, but not identical approach with Windows 10. After an upgrade to the new OS, or the first time a new device with the OS is run, the express setting pane says Windows 10 will "send error and diagnostic information to Microsoft." Going with the defaults sets telemetry to "Full."

But unlike with Windows 7 or 8.1, in Windows 10 a user who chooses custom settings to turn telemetry to "Off" isn't stymying diagnostics data collection. Instead, the choice reduces the amount of information Microsoft harvests from "Full" to the "Enhanced" level.



Insider participants cannot change the diagnostic data gathering from the "Full" setting -- they opted in to the testing program, after all -- but others running Windows 10 Home or Windows 10 Pro can reduce the amount collected by choosing either "Basic" or "Enhanced."

# Microsoft makes minor concessions on Windows 10 data collection

Will stop harvesting app usage data under 'Basic' setting

Gregg Keizer, Computerworld

Microsoft on Tuesday promised that it will dial back diagnostic data collection from Windows 10 devices when users select the "Basic" setting for the controversial harvesting.

"We've further reduced the data collected at the Basic level," said Terry Myerson, Microsoft's top Windows executive, in a [post to a company blog](#). Myerson did not elaborate on what was to be struck from Basic, the lowest level of diagnostic data collection offered to those running Windows 10 Home or Windows 10 Pro.

Currently, Windows 10 sports four gradations of diagnostic data gathering, only three which are available to all users: Basic, Enhanced and Full. A fourth, flagged as "Security," is available only to commercial customers running Windows 10 Enterprise or Windows 10 Education. The Security level sends the least information back to Microsoft, mostly data related to various defensive components, like the baked-in Windows Defender anti-malware program and the status of the Malicious Software Removal Tool (MSRT), a malware-wiping utility that the firm refreshes monthly.

Microsoft describes Basic as collecting "data that is vital to the operation of Windows," and to prove that, requires it as a minimum before serving the device with updates via Windows Update. "[Basic] helps keep Windows and apps secure, up to date, and running properly by letting Microsoft know the capabilities of your device, what is installed, and whether Windows is operating correctly," the company warns.

The other settings collect increasing amounts of data from a Windows 10 PC. Enhanced, for example, logs such things as "how long you use certain features or apps." Meanwhile, Full switches on other data gleaning, "including the memory state of your device when a system or app crash occurs (which may unintentionally include parts of a document you were using when a problem occurred)."

Under the new diagnostic regime, Enhanced will be eliminated, Myerson said. Those who had previously opted for Enhanced must choose between Basic and Full.

Changes to the diagnostic data collection practice will first reach Windows Insiders, the group that receives under-construction builds on a frequent basis. Myerson did not specify a date, saying only that the modifications would arrive for Insiders "soon."

Microsoft plans to incorporate the modifications in [Windows 10 Creators Update](#), the name it pinned on the next major upgrade. Although no release date has been set for the upgrade, clues last year hinted at a [March launch](#).

While Myerson did not detail what was to be dropped from the Basic level -- and the online documentation ([here](#) and [here](#)) had not been altered to reflect the new practices -- Microsoft later confirmed one data category on the chopping block. In a reply to questions, Microsoft said that application usage data would not be collected under the Basic setting.

According to Microsoft, Basic now grabs data on "which programs are launched on a device, how long they run, how quickly they respond to input, how many problems are experienced with an app or device." Come Creators Update, some or all of that information will no longer be collected by Basic. It will, however, continue to be acquired under the Full setting.

It was unclear whether the Full level would remain the default in the also-altered out-of-box experience that users encounter when they first fire up a new Windows 10 device or upgrade an existing PC to the operating system.

In an email, Microsoft said that "user feedback" drove the move to modify Windows 10's diagnostic data collection practices. That feedback had been largely negative, and began [almost simultaneously with the OS's mid-2015 debut](#). Users criticized the sweeping data gathering, which was more aggressive than that done by predecessors, including Windows 7 and Windows 8.1, blasting the company over the amount and kind of data digested and transmitted, and protesting when they discovered that they were not allowed to completely disable the technology.

In August 2016, the Electronic Frontier Foundation (EFF), waded in on Windows 10's data collection and transmission, and [urged Microsoft to "come clean"](#) with customers about exactly what information it plucked from the OS, and what it did with that data.

Microsoft vigorously defended the practice, arguing that data collection was necessary for it to safeguard customers' PCs and improve Windows 10. In 2015, one executive went so far as to claim that the practice was ["not an issue of personal privacy."](#)

Myerson roundly rejected that assertion on Tuesday by repeatedly using the word "privacy" in the blogged announcement, expending some of the 20 uses of the word in phrases such as, "We are launching two new experiences to help ensure you are in control of your privacy" and "In the Creators Update, we are making some changes by simplifying the privacy settings themselves and improving the way we present the privacy settings to you."

# Microsoft tries to appease Windows 10 data collection critics

Reveals more about what the OS scoops up

Gregg Keizer, Computerworld

Microsoft today revealed more about what information Windows 10 collects from users, the latest attempt to quell long-simmering resistance to the operating system's data gathering and reporting practices.

"Our hope is this information will help you be more informed about the data we collect and use, enabling you to make informed choices," said Terry Myerson, Microsoft's top Windows executive, in a [post to a company blog](#) Wednesday.

In a pair of pieces published to TechNet, Microsoft laid out what Windows 10 hoovers up under its two telemetric settings: Basic and Full.

Much of the [long list for Basic](#) was effectively incomprehensible to anyone but a Microsoft engineer, and thus of little or no use to most customers. In places, however, the descriptions were in English, more or less. "This event sends data about crashes for both native and managed applications, to help keep Windows up to date," read the explanation of `Microsoft.Windows.FaultReporting.AppCrashEvent`.

[Full's to-do](#) was easier going, but daunting nonetheless, for it detailed everything from data on what apps were installed and when they were installed to "Incoming and Outgoing calls and Voicemail usage statistics on primary or secondary line."

Microsoft also revised its overarching privacy statement, Myerson said, to reflect Creators Update. A ["what's-changed" list -- the "March 2017" section](#) -- can be found on the company's site.

Myerson even addressed the most elemental of the complaints lodged against Windows 10, that it scoops up a sweeping array of information on every user. "We have reduced the number of events collected and reduced, by about half, the volume of data we collect at the Basic level," Myerson said. He did not mention the Full level, describe what is now *not* gathered that had been before, or explain why Microsoft feels what it had once collected is now not worth the trouble.

Previously, when it claimed it was going to reduce what Basic collected, Microsoft had been [just as coy about what it would drop](#). At the time, it acknowledged only that application usage data would not be swept up under the Basic setting.

Yet neither Myerson nor a colleague -- Marisa Rogers, the privacy officer of the Windows group -- who added to her boss's commentary in the post, offered a way to completely disable Windows 10's telemetry, the fundamental demand of many critics.

That demand stemmed from Microsoft's move to make data collection compulsory, not just that it ramped up the quantity of data it suctioned up. In earlier Windows editions, telemetry was voluntary. (And even though Windows 7 and 8.1's revised data collection has been modeled on 10's, it has retained its opt-in approach.)

In January, Myerson announced changes to Windows 10 collection practices, including the dispensing of a third telemetric level, dubbed Enhanced. It also introduced a new screen where those upgrading to Creators will be asked to review their privacy settings. Previous settings will be retained unless the user explicitly changes them by, say, toggling the earlier "Full" to "Basic."

Full will also remain the default telemetry setting for anyone setting up a new Windows 10 device or doing a clean install of Creators on an existing Windows 10 system.

Nor has Microsoft opened up about whether the setting that collects the least amount of information -- called "Security" -- will still be available only to commercial customers running Windows 10 Enterprise or Windows 10 Education.

There may be more changes down the line, though Myerson and Rogers did not specify any. "We will continue to refine our approach and implement your feedback about data collection and privacy control," Rogers pledged. "The Windows 10 Creators Update is a significant step forward, but by no means the end of our journey."