Windows 10: Data Collection

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Preamble

In Part 1, we considered Windows versioning and update scenarios. In this installment, we will have a look at data collection.

Part 2: Data Collection

Before continuing, there are two elements that were of concern to me that I discovered when working with the Windows 10 operating system namely, 1) Cortana and 2) Windows telemetry – both of which are integrated into the Windows 10 operating system.

Cortana

Cortana is, first and foremost, an AI, or an artificial intelligence, assistant – similar to Google Assistant and Siri. According to Microsoft, "Cortana is your digital agent. She'll help you get things done. The more you use Cortana, the more personalized your experience will be. To get started, type a question in the search box, or select the microphone and talk to Cortana." In particular, Cortana is designed to learn about you and store what matters in her Notebook. That means she'll silence your phone during your favoured quiet times, warn you about travel issues and remind you that your friends owe you money."

In an August 2016 edition of Computerworld, Steven Vaughan-Nichols, had this to say in an article entitled, "Cortana: The spy in Windows 10"¹,

"When I first saw Mr. Spock talking to the Enterprise's computer, I thought it was so cool. I still do. But the more I look at Cortana, Windows 10's inherent virtual assistant, the more creeped out I get. Let's start with Cortana's fundamental lust for your data. When it's working as your virtual assistant it's collecting your every keystroke and spoken syllable. It does this so it can be more helpful to you. If you don't like that, well, you've got more problems than just Cortana. Google Now and Apple Siri do the same things. And it's not just virtual assistants; every cloud-based software as a service (SaaS) does this to one degree or another — Google Docs, Office 365, whatever. But Cortana doesn't stop there. With the recently released Windows 10 Anniversary Update, hereafter Windows 10 SP1, you can't shut Cortana off. Maybe you don't mind Microsoft listening to your every word so it can catch when you say, "Hey, Cortana." I do. Yes, I want the coolness factor of being able to talk to my computer. But I want the reassurance that it's not listening when I don't need it to be. I want a simple on/off switch. Windows 10 SP1 doesn't have one. This is interesting, though: Windows 10 Education does. Microsoft apparently is willing to respect the privacy of students. The rest of us? Not so much."

As a result of this and other such articles, many had concerns that Cortana was collecting personal information from their computers and uploading it to computers called servers. Though there was not enough proof to validate this usage, it still managed to enrage a lot of people. This takes us to our second point – telemetry.

Windows Telemetry

The term telemetry is simply defined as "the means of the automatic measurement and transmission of data by an available means from remote sources to receiving computers for recording and analysis". Notice, recording and analysis ... Hmmmm!

Microsoft, on the other hand, defines telemetry as "system data that is uploaded by the Connected User Experience and Telemetry component, also known as the Universal Telemetry Client, or UTC service." Notice, uploaded ... but where?

Purpose

Microsoft uses telemetry data from Windows 10 to identify security and reliability issues, to analyze and fix software problems, to help improve the quality of Windows and related services, and to make design decisions for future releases.

So what exactly does Microsoft capture and transmit, and how often? According to InvestmentWatch², Windows 10 transmits the following data back to the company:

- Typed text on keyboard sent every 30 minutes
- Transmits anything you say into a microphone
- Transcripts of things you say while using Cortana
- Index of all media files on your computer
- When your webcam is first enabled, 35mb of data
- Telemetry data

Lastly, as with Cortana, the Windows Telemetry service cannot be completely disabled! Interesting!

Closing Comments

Maybe I am simply too "old schooled" to sincerely believe that data collection schemes such as Cortana and Windows Telemetry have any real practical use. And though I do believe that I am not paranoid about such "services" – I am concerned, nonetheless. How about you?

I hope that you have find this information understandable, informative, and of some practicable use to you?

Sincerely,

Dell Krauchi

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Further information/resources:

¹https://www.computerworld.com/article/3106863/microsoft-windows/cortana-the-spy-in-windows-10.html

²InvestmentWatch

https://www.investmentwatchblog.com/a-traffic-analysis-of-windows-10-2/

Cortana and privacy

https://support.microsoft.com/en-us/help/4468233/cortana-and-privacy-microsoft-privacy

Should You Disable Windows 10 Telemetry?

https://www.neweggbusiness.com/smartbuyer/windows/should-you-disable-windows-10-telemetry/