Contact Information:
Cyber Criminal Intelligence Program
27130 Telegraph Road
Quantico, Virginia 22134

Phone: 571.305.4482 [DSN 240]
Fax: 571.305.4189 [DSN 240]

Email
usarmy.cciuintel@mail.mil

CCIU Web Page
http://www.cid.army.mil/701st.html#sec6

CID LOOKOUT
ON POINT FOR THE ARMY

"Do What Has To Be Done"

CPF 0002-18-CID361-9H **22 February 2018**

Do You Know Where Your Personal Fitness Device Is?
Our Adversaries Probably Do!

In the cyber world there are many vulnerabilities that safety minded users should be aware of. Some have already been written about in previous Cybercrime Prevention Flyers. But recent mass media reporting has focused attention on the vulnerabilities of fitness devices.

The fitness device's vulnerability is due to it being location aware. Location aware describes a device that knows where on the planet it is – often within a few feet. That's how devices calculate your fitness activities; where you run, how far you run, how fast you run, your heart rate, and other measurements.

But it's not just fitness devices that have vulnerabilities, it's any electronic device that is location aware. Most location aware devices record location data and allow users to upload the location data to a remote site, such as an app on your phone or website, for further analysis. Some devices are always connected and always sending data to a remote site. Sometimes you might not even be aware of that.

The vulnerability, you see, is that some website owners sell your location data, along with thousands of others' location data, to third parties. And those third party vendors might very well resell the data to yet other vendors. If your location data gets into the hands of a bad actor, you're vulnerable.

With location data from a location aware device, someone can formulate a pretty accurate picture of your life patterns. Or a child's life patterns. Or a Soldier's life patterns.

> *"Where available, location-based services may use GPS, Bluetooth, and your IP Address, along with crowd-sourced Wi-Fi hotspot and cell tower locations, and other technologies to determine your devices' approximate location." (Actual, unattributed Terms of Service)*

An adult's most frequently observed location will undoubtedly be home or a workplace, a child's most frequently observed location will likely be home and school. A Soldier's will likely be home and their duty assignment.

Identifying the Soldier's workplace is particularly troubling when the Soldier is deployed and location data used by our adversaries could reveal where the Soldier is deployed. Under some circumstances, location data could reveal the paths of patrols, troop and equipment movements, and places the Soldier frequents. If the location is clandestine, the outcome of our adversaries having that information could be beyond devastating.

The purpose of this flyer is not to tell you to stop using location aware devices. They have value. The purpose of this flyer is to raise awareness and help you understand the threats posed by location aware devices. You can decide if your use of the device is worth it.

Cybercrime Prevention Flyer

Can you eliminate the vulnerabilities of location aware devices? The short answer is probably not unless you disconnect from the grid. That's just not practical. But with proper awareness and understanding you can make informed decisions – is the benefit worth the risk?

When you install a new app or buy a new device, pay attention to the when and how your data is being used notices. Generally, when you install new software or an app on your smart device, you're asked to agree to the terms of service. The terms of service (TOS), that part no one reads but agrees to anyway, has the information about how your data will be used.

> *"The Services include features that use precise location data, including GPS signals, device sensors, Wi-Fi access points, and cell tower IDs. We collect this type of data if you grant us access to your location..." (Actual, unattributed Terms of Service)*

In the TOS, if you see words and phrases like "…we may collect data about how you use your device…" or "… share precise location data...." read and understand the privacy terms before agreeing to or accepting the TOS.

TOS Excerpts

In the TOS of a major telecommunications provider is this: "…information collected by third parties, which may include such things as location data or contact details, is governed by their privacy practices." In straightforward terms, this tells you that even though you might read the unending page after page of this app's TOS you still need to be aware of and read the TOS of every unspecified third party to which your data might be provided.

Now, consider this almost frightening, all-encompassing, irrevocable TOS from a common internet communications giant that grants to the provider unlimited rights to distribute your data:

> …you grant [service provider] a worldwide, perpetual, irrevocable, transferable, royalty-free license, with the right to sublicense, to use, copy, modify, create derivative works of, distribute, publicly display, publicly perform, and otherwise exploit in any manner such User Content in all formats and distribution channels now known or hereafter devised (including in connection with the Services and [service provider]'s business and on third-party sites and services), without further notice to or consent from you, and without the requirement of payment to you or any other person or entity.

When and how the data from your location aware device is used is your responsibility to research and the decision to use or not to use the various location aware devices is yours to make.

External Resources

U.S. Soldiers are Revealing Sensitive and Dangerous Information by Jogging, Washington Post

8 Realities About Location-based Apps, Computerworld

Could You Fall Victim to Crime Simply by Geotagging Location Info to Your Photos? Digital Trends

Do You Know How Much Private Information You Give Away Every Day? Time

CCIU uses the Interactive Customer Evaluation (ICE) system. Please click on the ICE logo and take a moment to provide feedback.