

Own an Echo? Amazon may be helping itself to your bandwidth

June 10 2021, by Joseph Pisani and Matt O'brien



David Limp, senior vice president of Devices and Services at Amazon, displays a new Echo, left, and an Echo Plus during an event announcing several new Amazon products by the company, Wednesday, Sept. 27, 2017, in Seattle. On Tuesday, June 8, 2021 Amazon launched a program that forces users of many Echo smart speakers and Ring security cameras to automatically share a small portion of their wireless bandwidth with neighbors. The only way to stop it is to turn it off yourself. Credit: AP Photo/Elaine Thompson

Do you own an Amazon smart device? If so, odds are good that the company is already sharing your internet connection with your neighbors unless you've specifically told it not to.

On Tuesday, the company launched a program that forces users of many Echo smart speakers and Ring security cameras to automatically share a small portion of their home wireless bandwidth with neighbors. The only way to stop it is to turn it off yourself.

Amazon says the program, called Amazon Sidewalk, is a way to make sure lights, smart locks and other gadgets outside the home and out of reach of a Wi-Fi connection stay working.

But some experts warn that the technology is so new that privacy and security risks remain unclear. And almost no one seems happy that Amazon forced consumers into Amazon Sidewalk—or that many people may not know they can opt out of it.

DID AMAZON TELL CUSTOMERS THIS WAS HAPPENING?

Amazon says it sent emails to customers last month and in November that Sidewalk was coming. The company says you'll also get a notification when you set up gadgets that work with Sidewalk.

HOW CAN I STOP THIS?

Once you know about it, it's relatively straightforward, if not exactly simple, to opt out of Sidewalk. Echo users can go into the Alexa app, tap "More" in the lower right hand corner, then tap "Settings," then "Account Settings," where they'll find a section for Amazon Sidewalk and a button to disable it. In the Ring app, go to "Control Center" and then tap "Sidewalk."

WHY IS AMAZON DOING THIS?

The idea behind Sidewalk is to integrate residential wireless connections into a "[mesh network](#)" that can extend coverage to areas home Wi-Fi can't reach. Amazon's Echo and Ring devices band together to create a this network by grabbing a slice of bandwidth from each cooperative home network. That can extend the range of devices designed to work with Sidewalk so they'll stay connected even when away from your [home network](#).

One example of such a device is Tile, a tracking [device](#) that can be placed on keys or a dog's collar. If your dog goes missing in a neighborhood where Sidewalk is working, it might turn up quickly via Tile.

Other products that work with Sidewalk include smart locks that can be controlled by phone and wearable devices that can track people with dementia who may wander. Amazon expects additional devices, including outdoor lights and motion detectors, will work with Sidewalk before long.

HOW DOES IT WORK?

Amazon is tapping into a variety of radio technologies, including one called LoRa for its long range and better known for industrial and business applications such as keeping track of cattle roaming through pasturelands.

"The goal here is not to create coverage for a single home," said Marc Pegulu of chipmaker Semtech, which is partnering with Amazon on the technology. "It's kind of a shared network, a community shared network."

Among other things, devices connected to the shared network can supposedly search for the best signal in a way that can preserve their battery life.

Thomas Clausen, a computer science professor at France's École Polytechnique, says that the network Amazon is creating could be a good thing provided that it's open and accessible, because it would make it easier and cheaper to use internet-connected devices and sensors and spark new innovations.

"But of course, when a behemoth like Amazon, or Apple or Google or Microsoft, create a platform, they also can end up controlling the platform and that can stifle innovation," he says.

WHAT ARE THE RISKS?

Hackers could potentially infiltrate home networks via Sidewalk, said Eric Null, a policy manager at digital rights group Access Now. If that happens, Null said hackers could observe everything you do, take over your devices or access your files to steal information.

"It's only a matter of time before someone's network gets hacked and data gets breached," said Null.

William Tong, Connecticut's attorney general, [warned](#) consumers this week that the program was "uncharted territory" and that people should opt-out of Sidewalk unless they are sure their privacy and security will be protected.

"Wireless networks are already notoriously vulnerable to hacks and breaches," Tong wrote in a statement. "Families need better information and more time before giving away a portion of their bandwidth to this new system."

WHAT DOES AMAZON SAY?

When asked about privacy and security concerns, an Amazon spokesman said he couldn't respond to "hypothetical situations." The company didn't respond to a request to make an executive available for an interview, but said that data that flows through its network has three-layers of encryption that's meant to keep hackers from seeing it.

Samir Jain, director of policy at the Center for Democracy and Technology, said Amazon's efforts to encrypt data was a good step. But Jain said that it's hard to identify security vulnerabilities until a new technology is deployed in the real world.

WHICH DEVICES WANT TO SHARE MY INTERNET?

Echo devices that share [network](#) bandwidth via Sidewalk include the third generation and newer versions of the Echo, Echo Dot, Echo Dot for Kids and the Echo Dot with Clock. The Echo Show 5, 8, 10; the second generation of the Echo Show; Echo Spot; Echo Plus; Echo Studio; Echo Input; Echo Flex.

Sidewalk-enabled Ring devices include the Ring Floodlight Cam; Ring Spotlight Cam Wired; and Ring Spotlight Cam Mount.

DOES AMAZON HAVE BIGGER AMBITIONS?

Amazon has explained Sidewalk in the context of consumer devices such as cameras and speakers. But it could also one day integrate the technology into its core business: delivering goods.

For example, the company could embed tiny internet-connected devices into cardboard packages to help track them, said Clausen of École Polytechnique.

"Having integration of alarm systems, presence detection of whether or not people are there, will potentially allow Amazon to create more efficient delivery schedules and fewer re-deliveries," he says. That could be one application Amazon is thinking about, he added.

© 2021 The Associated Press. All rights reserved. This material may not be published, broadcast, rewritten or redistributed without permission.

Citation: Own an Echo? Amazon may be helping itself to your bandwidth (2021, June 10)
retrieved 2 May 2024 from <https://techxplore.com/news/2021-06-echo-amazon-bandwidth.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.