

Tappy the robot is behind part of charges against Huawei

29 January 2019, by Tali Arbel



This Wednesday, Oct. 14, 2015, file photo shows a T-Mobile store in New York. A federal indictment accuses Huawei of stealing trade secrets from T-Mobile, in the form of a robot designed to automatically test phones for problems. (AP Photo/Richard Drew, File)

Chinese tech company Huawei went so far as to steal a robot's arm in its bid to get its hands on T-Mobile's trade secrets, the U.S. government alleges.

The case over Tappy, T-Mobile's phone-testing robot, portrays a company going to what the government calls illegal lengths to gain access to others' intellectual property.

"This indictment shines a bright light on Huawei's flagrant abuse of the law," Assistant U.S. Attorney Annette L. Hayes in Seattle said in a statement.

The criminal charges in Seattle were announced the same day the U.S. government unveiled a case in New York that accuses Huawei, two of its subsidiaries and a top executive of misleading banks about the company's business and violating U.S. sanctions.

Huawei is China's first global technology competitor and one of the world's biggest cellphone companies and makers of telecommunications parts. Huawei has rejected accusations by Washington and some other governments that it is controlled by China's ruling party and might facilitate spying. Some experts say there's no major revelations in Monday's charges, however.

"If Tappy is as far as they've gotten on (intellectual property) theft, that seems to be pretty thin gruel for waging a large campaign against Huawei," said Adam Segal, a cybersecurity expert at the Council on Foreign Relations who follows China closely.

T-Mobile declined to comment. Huawei said in an emailed statement Tuesday that it denies any violations of U.S. law, and that the Tappy allegations were already a settled matter between it and T-Mobile.

In a civil lawsuit against Huawei over the robot, a federal jury in Seattle awarded T-Mobile \$4.8 million in damages in 2017.

Tappy was developed by T-Mobile in 2006 to help spot problems in phones before they hit the market by mimicking how people actually use them. Its aim was to save the company money by having fewer customers return problematic phones.

T-Mobile, which is based in Bellevue, Washington, considered Tappy superior to competitors' phone-testing systems, including those using humans. Allegedly, so did Huawei.



This Tuesday, Dec. 18, 2018, file photo, shows company signage on display near the Huawei office building at its research and development center in Dongguan, in south China's Guangdong province. A federal indictment accuses Huawei of stealing trade secrets from T-Mobile, in the form of a robot designed to automatically test phones for problems. (AP Photo/Andy Wong, File)

To try to protect its robot, T-Mobile allowed only a few people from outside the company to have access to Tappy in a special area of its lab. After being approved and trained, these people were subject to confidentiality agreements that forbade them from taking photos or videos of Tappy, or trying to reverse-engineer the robot.

Meanwhile, Huawei was looking to break into the U.S. market and improve the quality of its phones. It struck a deal with T-Mobile to sell its devices. Starting in September 2012, T-Mobile let Huawei engineers into the Tappy chamber to test their phones, after Huawei agreed to T-Mobile's conditions.

Huawei first asked T-Mobile if it could license Tappy for broader use, but T-Mobile declined. The government says Huawei then began a scheme to steal Tappy technology and apply it to its own phone-testing robot, called xDeviceRobot, in China.

Prosecutors say Huawei China pushed employees in the U.S. to find out technical details on Tappy, like the sliding speed of its mechanical arm. But T-Mobile gave only limited answers to their questions.

According to the indictment, Huawei employees in the U.S. sent back unauthorized photos of the robot, but ran into roadblocks.

One Huawei employee, identified in the indictment only as "R.Y.," wrote in a January 2013 email to Huawei China that, "Once again, we CAN'T ask TMO any questions about the robot. TMO is VERY angry the questions that we asked. Sorry we can't deliver any more information to you." The employee suggested Huawei China send its own engineer to the Seattle lab.

In May 2013, a Huawei China engineer identified as "F.W." arrived in Seattle and sneaked into T-Mobile's Tappy lab two days in a row, helped by authorized Huawei employees. He was kicked out and banned by T-Mobile, but managed to take photos of Tappy.

T-Mobile then banned all Huawei employees from its lab, except for one engineer identified as "A.X.," according to the indictment. On May 29, A.X. took a Tappy robot arm out of the lab in his laptop bag. When questioned by T-Mobile, he said he found it in his bag and returned the arm the next day. T-Mobile then took away his access badge.

The government says F.W. took detailed measurements and photos of the robot arm while it was missing and sent the details to China.

Huawei later told T-Mobile that A.X. and F.W. acted on their own, violated Huawei policies and were fired. The government, however, says it was a broader conspiracy.

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