Predictive and blockchain.

Black lists for stolen smartphones.

Every year around four million cell phones disappear in Germany. With every theft or loss, the owners face expensive replacement costs. A blockchain for smartphone identification numbers could facilitate the locking of mobile devices.

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The theft of a smartphone or iPad entails not only a financial burden: Even more serious is the loss of valuable data, be it contact and account information, image files, or passwords. The only way to protect this data as soon as possible after the theft is to lock the device. For this purpose, network operators place missing registered smartphones on an internal, locally stored blacklist based on the identification number (IMEI). Once this is done, the thief can no longer dial into the network using the stolen device.

DECENTRAL BLOCKCHAIN BLACKLIST

That's how easy it was to date. But it will get more complicated in the future with eSIM smartphones, since the previously exchangeable SIM card is now permanently installed. This allows service to be obtained from multiple providers, for example, from local providers when on vacation. It is no longer necessary to replace the SIM card. This is convenient but carries risks if the smartphone is lost because the owner must then contact each individual provider to block his number.

With a decentralized blacklist based on blockchain technology, Deutsche Telekom IT together with SAP and Camelot will be able to ensure that customers can have their smartphones blocked faster, regardless of the number of contracted service providers and phone numbers. "The goal of Global IMEI Storage and Services is to build a decentralized blacklist that allows providers worldwide to view the blocked IMEI number," says Stephan Westermeyr, Director of Order Management & Billing at Deutsche Telekom IT.

The newer the smartphone, the more attractive it is – unfortunately for pickpockets, as well. According to a survey conducted by the industry association Bitkom, more than 400,000 mobile phones per year are stolen in Germany alone.

PROTECTION FOR ONLINE PURCHASES

"In the first step, Deutsche Telekom's blacklist will be anonymized and decentralized for other partners." Then other network providers, government agencies such as the police, or the users themselves can see which smartphones are locked. Also, for online purchases, for example, on eBay, a public blacklist makes sense. This means the buyer can check with just a few clicks if the cell phone has already been reported stolen. "Meanwhile, other network providers have announced they want to support the blacklist blockchain," says Westermeyr. "We then plan to roll out blockchain more broadly for smartphone abuse and involving manufacturers as well as other telecom providers."

TIP

Smartphone owners should know and note the IMEI number of their device. The individual 15-digit number uniquely identifies the device. The number is often found on a sticker under the battery of the device or on the packaging. For Android smartphones, the IMEI is hidden in the general settings under "Device Information," "Phone Information," or "About the Phone", for example. Then go to "Status." For Apple smartphones with iOS operating system, the number is found under "Settings," "General," and then "About."