

AskNUSEconomists

Telcos can do more to make phone scamming unprofitable

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For The Straits Times

Q Are there ways to deter phone scammers?

A Earlier this year, a China national in her 20s named Zhang studying in Singapore lost \$300,000 to scammers impersonating Ministry of Health officials.

She was not the only victim as there has been an increase in the number of such phone scams. Between January and June, the police dealt with 323 China official impersonation scams which caused losses amounting to \$49.5 million – this marked a 47 per cent rise in case numbers involving a

sum almost five times higher than that recorded over the same period last year. In November last year, the National Crime Prevention Council launched ScamShield, an Apple iOS mobile application. The app, downloaded over 200,000 times, enables users to report the telephone numbers of scammers and also block the more than 8,600 reported scammer numbers.

Yet, ScamShield functions more like Band-Aid on a serious and growing crime. Rather than fight fires, it is far better to prevent them.

Scammers operate from outside Singapore and use computers to “spoof” the originating telephone numbers. Spoofing is a technology to trick the receiving caller-ID

system into displaying a local telephone number. The scammers believe that Singaporeans would be more likely to answer a local call.

In April last year, the Government took a major step towards thwarting scammers by requiring telcos to use the +65 prefix for all telephone calls originating from outside Singapore that purport to be from local numbers. The aim was to alert those getting such calls to possible scams.

Still, the increase in the number of scams and the huge jump in losses to scammers this year suggest that the ScamShield and the +65 indicator have not deterred the criminals.

Responding to a question from

MP Murali Pillai (Bukit Batok) in Parliament in May, the Minister for Communications and Information Josephine Teo revealed that the Government had considered blocking all international calls that spoof local numbers.

However, she decided against such a policy as this would also block legitimate calls, such as those by Singapore residents travelling overseas who use the mobile roaming services, and by overseas call centres of local businesses using local hotline numbers.

3 WAYS TO BLOCK THE SCAMMERS

In this, Singapore telcos can do better. First, they could compile the telephone numbers used by legitimate local businesses with overseas call centres. These numbers can be stored in a “safe list”, shared among the telcos, and allowed to operate freely.

Second, telcos could make use of artificial intelligence to identify scammers. One indication would be multiple calls from the number to different numbers in close succession – say more than 10

consecutively.

To further sharpen their analysis, telcos could take into consideration the Covid-19 pandemic, with fewer people travelling overseas and making roaming calls. In the past 19 months, almost all +65 calls (other than those in the safe call centre lists) would likely be scam calls. Telcos could take that into account in recognising the patterns of these calls.

Third, for calls which telcos are not able to positively identify as scams, a proof-of-work solution would help. Similar to the Captcha test so familiar to all who browse the Internet, the telco could generate a question before connecting the call, one that a machine would not be able to answer. This would hardly be an inconvenience to legitimate callers. Besides, probably a majority of calls these days are made through free messaging and calling apps such as WhatsApp and WeChat.

Although the telcos would lose revenue from the international calls, this would be far less than the losses to customers tricked by scammers.

We know this because scammers operate only if the amounts that they steal exceed their cost of international calling.

Telcos could also offer scam-call blocking service as a value-added enhancement to caller-ID or as a separate service. Consumers would likely find it attractive to pay a fee of say \$5 per month to avoid being bothered by scam calls, or worse, lose thousands of dollars to a fraudster.

Scamming is an economic crime. Once the costs of carrying out the con are more than what the crooks stand to gain from the crime, they will move on.

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