

Your Phone and How It Identifies You by Default (Even if You are Not Connected to the Internet)

Unique device and phone number identifiers. There are two sets of numbers that are unique to you:

- IMEI (International Mobile Equipment Identifier) is a string of numbers that is unique for every device. If you have a mobile device that is capable of having two sim cards, then you have two IMEI numbers.
- IMSI (International Mobile Subscriber Identity) is unique per mobile phone number. For the mobile service providers, they verify your identity using these numbers.

So whenever we use our mobile phones for SMS and calls, the telcos can identify these two numbers and know that each number is unique to a specific device and user.

Antennas and location. Mobile phones connect to mobile towers all the time (i.e. part of being connected). It means that the telcos have information about the location of each subscriber.

So, if your mobile phone number is registered to your name, the mobile phone company knows your device (IMEI) and your location when you were last connected to their network. They have these data of all their subscribers. In Myanmar they retain these data for calls and SMS and retain them for 6 months according to the Telecommunications Law.

CAUTION

- You cannot reuse the sims you have put in a previously used mobile device because when you put your SIM in another device, the operator can still recognize your new device through your old SIM.
- When you are using a different SIM with a phone you have used with a previously registered SIM, the telco can identify that the new sim is linked with your registered sim.
- So in order to protect your identity, you would need a new phone and a new sim.
- Another thing to consider is the usage behaviour. Remember, at any given time, the mobile company knows where all the phones connected to it are located. So, if you have the new phone and the old phone together with you all the time, they might also be able to know that these two devices are always at the same location and identify that the new phone is you.
- You can also get a new sim cards from different telco providers, since they are different providers they connect to different towers. For example, if you use Ooredoo sim, try getting a Telenor sim for the new sim.
- To prevent this, you can also use a faraday bag to prevent your phone from connecting to the towers.

- Get creative! All you need is foil and some tape. Learn how to make faraday bag: <https://www.youtube.com/watch?v=PYHvMXAXGE4>
- Makes sure you test your faraday bags if they work. For smart phones you can install the following apps (instructions are in the apps):
 - Android - <https://play.google.com/store/apps/details?id=com.mos.tester&hl=en>
 - iOS - <https://apps.apple.com/us/app/faraday-test/id1185188891>
- For feature phones, you can test by putting the phone in the faraday bag, wait around 30 to 60 seconds then try calling the phone. The phone should not ring. Better yet, remove the battery and put in a faraday bag.

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How the SMS and regular call work

When you send a SMS or call, your phone connects to the nearby cell towers then to the telcos. Let's say you are using Ooredoo and your friend is using Telenor, the SMS or the call goes through both the towers of Ooredoo and Telenor. When it happens:

- Both Ooredoo and Telenor (in this example) know your number and your friend's number. They both know that you are sending messages to each other.
- They know the content in the SMS you are sending/receiving as well as what you say during the call. (Just because you hang up the call doesn't mean the conversation disappeared. The telcos keep the call records up to 6 months according to Myanmar Telecommunication Law, but in this situation, we are not sure how long they will be keeping the data.)
- There is no data protection nor lawful interception legal framework so the telcos just have to handover the data if the authorities ask for them.
- Also, it can be easily intercepted by someone else.