

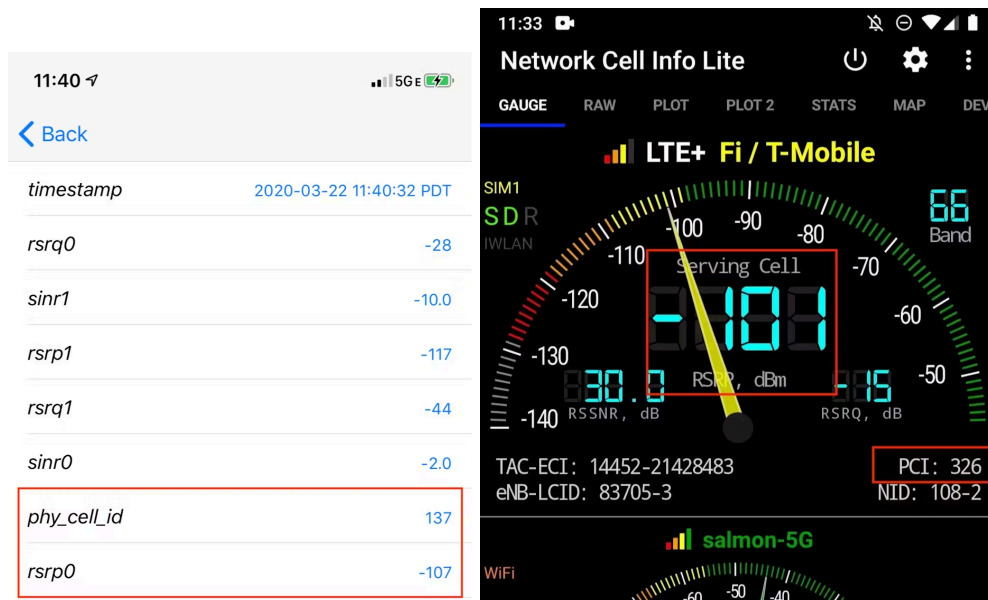
# Week 3 Lab: Cell Tower Investigation

💡 This week we are going to pivot from WiFi and dive into the world of cellular networks. This lab is more open ended than most labs in the CNCS degree, so have some fun picking a tool(s) and choose your own path with how you present your findings!

## Task #1:

- Partner up (ideally one iOS user and one Android user)
- Use this webpage to help find some potential apps/web tools that can be used for researching cell towers: [waveform.com/a/b/guides/cell-tower-mapping](https://waveform.com/a/b/guides/cell-tower-mapping)
- For iOS use, try dialing \*3001#12345#\* from the phone app and compare your findings to a tool like [cellmapper.net](https://cellmapper.net)
- Install/access your tool of choice and start poking around with what you can see
- Aim to look for tower details where you can get the most information about towers near you or your current connection

Deliverable 1: Share a few (2+) screenshots of what you are seeing with your tool of choice. Please include a one sentence description of each screenshot specifying the tool(s) you are using.



## Task #2:

- Research any acronyms or terms that you see within the tool/app that you are unfamiliar with

Deliverable 2: Create a dictionary of at least 5 new acronyms/terms, and their definitions, that you are finding within the tool/app. No screenshots needed.

### Task #3:

- Apply your findings from task 1 and 2 and start to make some sense of the figures you are seeing within the tool/app
- Think about why the figures may be what they are, especially signal strength
- Are you able to find the tower that you are connected to on a map ([cellmapper.net](http://cellmapper.net))
- For example: *Based on the left screenshot above, I can see that the "rsrp0" is -107 decibel milliwatts (dBm). This represents the signal strength and -107 dBm is a poor signal. This means the tower is either quite far from my device or there is some serious interference causing the connection to be weak. I think this is likely because I am 50 ft underground in a cave on a spelunking trip.*

Deliverable 3: Write up at least 3 examples of your findings plus analysis (like the example above). No screenshots required but feel free to use them!

For this submission, please **include both names** at the top of your submission document, and please **both submit** the same document.