Lab 08 - Exploring OpenBTS

Overall, it is kinda fun managing your own base station. I was kinda confused at first when watching the class video, mostly because I was half watching and half doing. But, when it reached the part where the devices weren’t registering, I just needed to wait a few more minutes for the explanation and most of my issues went away.

Also, running the command “restart” within OpenBTSCLI didn’t really work that well and it hung trying to restart the transceiver. I just ended up using the command I’d seen you use previously under the command/shell history – which was, “sudo service openbts restart”. Doing this enough times, then backing out of the network registration page on the device was enough to get the network changes seated properly.

In the end, I only really changed the following fields…

* Control.LUR.OpenRegistration
* Control.LUR.SendTMSIs
* GSM.Identity.MNC
* GSM.Identity.ShortName
* GSM.Radio.C0

The network first showed up as, “00131”, but it later recognized the ShortName that was set. It now shows the network as “MicahFlack | CSC420”.

Graphical user interface, text, application, email

Description automatically generated

And this is just to show what that OpenRegistration msg looks like when enabled.

I also registered both devices as subscribers using the nmcli tool, giving each their own #. But, this was kind of a hassle and it didn’t work right away.

Graphical user interface, text, application, chat or text message

Description automatically generated

This is the brief conversation I had with myself, sadly nothing entertaining to read.

There were some undelivered msgs (as shown on the left side) because of duplicate/inaccurate subscriber records I’d created by mistake. After deleting the records the msgs began to sync immediately.

One of the phones locked up after mistakenly trying a phone call between devices (like what you mentioned). So, I used the adb shell to restart the unresponsive device.