

Past week accomplishments

Name: DaZhawn Davis

Time spent: 8 (from 11/8 to 11/22)

What I did this week: Looked over more of the code within the v1.0.2 to see what differences that we could possibly improve. Also build an oai with just a basic simulator to compare to the simulator to v0.5.2. Found what file implements the physical abstraction layer

Plans for next week: Look more into how physical abstraction layer should work. Try to get a better understanding of how the physical abstraction layer works with MAC. Run some more emulations.

Name: Andrew Whitehead

Time spent: 6 (from 11/8 to 11/22)

What I did this week: Looked at the LTE_PHY code. Executed the diff command on the V0.5.2 and master branches for the SIMULATION folder. Took note of differences between files.

Plans for next week: Run more of the xml files on a lab computer. Start to look into device-device communication algorithms and systems. Analyze more OAI documentation.

Name: Rohan Willis

Time spent: 7 (from 11/8 to 11/22)

What I did this week: Reviewed and analyzed v1.0.2 of our code and took a look at the LTE_PHY code. Began minor research into device-device communication to prepare for next semester.

Plans for next week: This next week i will begin to run more emulations and continue to research device-device communication.

Name: Ousmane Liloyd Ntutume

Time spent: 6 (from 11/8 to 11/22)

What I did this week: For this period I looked into the five technologies that could enable the 5G NR network, and the following were founded. 5G new radio network is composed of millimeter waves for a larger bandwidth, a massive MIMO for a greater number of device connectivity, small cells technology for a better connection reliability, full duplex for a better faster TX/Rx signal, and finally beamforming for a better energy conservation and a more accurate signal delivery.

Plans for next week: For the following period I will look more into the PHY layer abstraction and the reason why it is preferred instead of the full PHY layer

Name: Nolan Cardona

Time spent: 7 (from 11/8 to 11/22)

What I did this week: Performed work on the Design Document for the class, worked to create a full Gantt chart that we will be able to use to demonstrate our progress thus far, as well as what we plan to do in the future. Began to conduct research on device to device communication which will be a key focus for the project in the following semester. Collaborated with team members to continue to work on running and documenting our results to the simulations that were conducted.

Plans for next week: Discuss with faculty members over progress on the project thus far. Continue to work more on the Design Document, fixing any of the formatting errors that have existed in the previous revisions. Look into attempting to run simulations on new version of the 5G code (v1.0.2).

Individual contributions

Team Member	Contribution	Weekly hours	Total hours
DaZhawn Davis	- Compare and contrast codes	8	65
Andrew Whitehead	- Executed simulation commands	6	57
Rohan Willis	- Code comparison & research	7	55
Nolan Cardona	- Performed research on device to device	7	57
Ousmane Loyd Ntutume	-5G NR technology	5	50