

5G/NextG Week 8

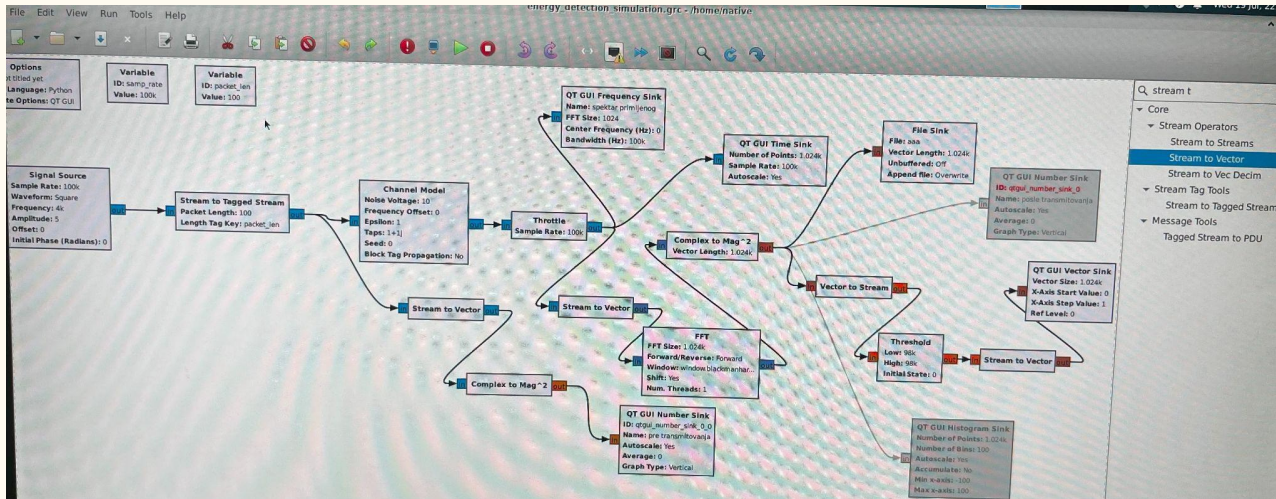
By Jeff Acevedo, Sanskar Shah, Nikhil Sampath, Ryan Lin,
Sreeram Mandava, Aleksa Samardzija, Stanislav Ceman

Progress Report

- Continued work with D3 visualization
- Implemented basic communication system with RabbitMQ
- Progress with OAI/Amarisoft implementation
- Worked with Emacs, Lisp, Json Parsers for AI Planner

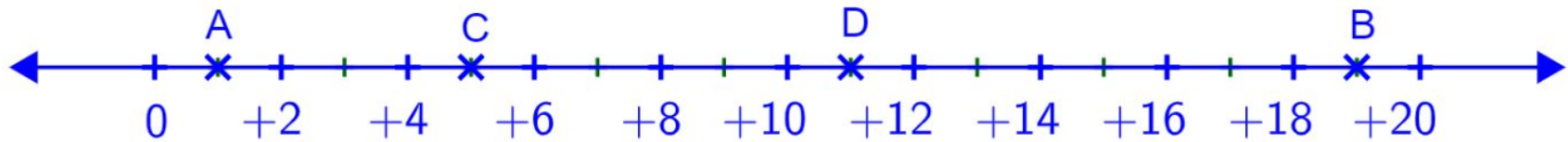
Spectrum Sensing

- Used to determine whether a certain frequency is occupied by primary user
- Deployed energy detection method in GNU Radio

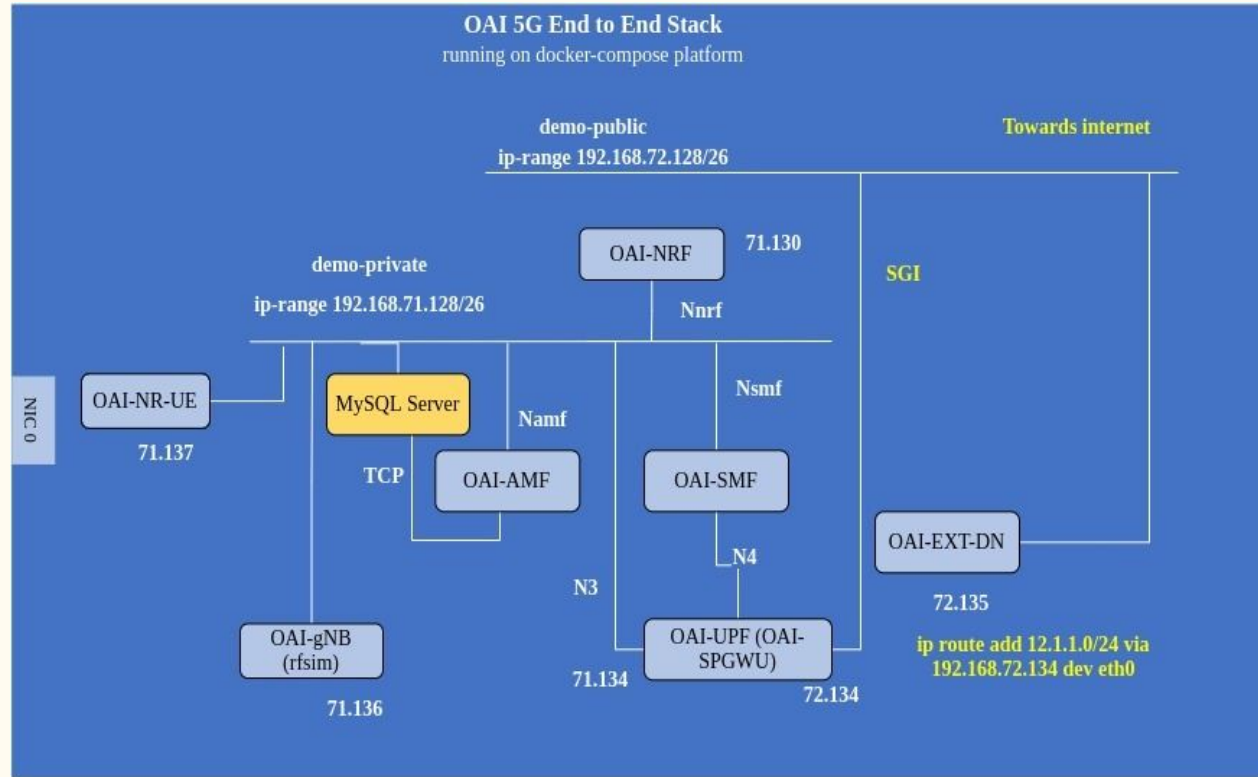
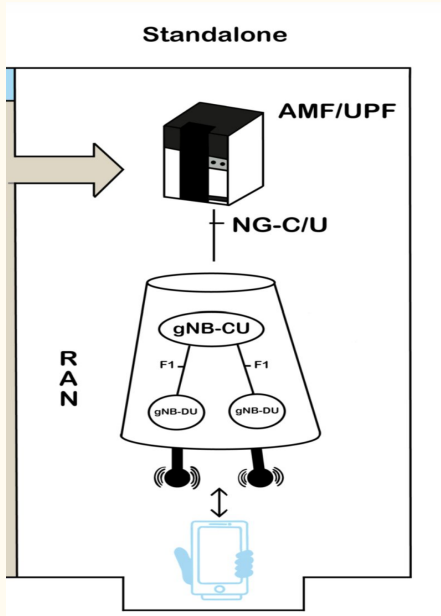


Topology Scenario

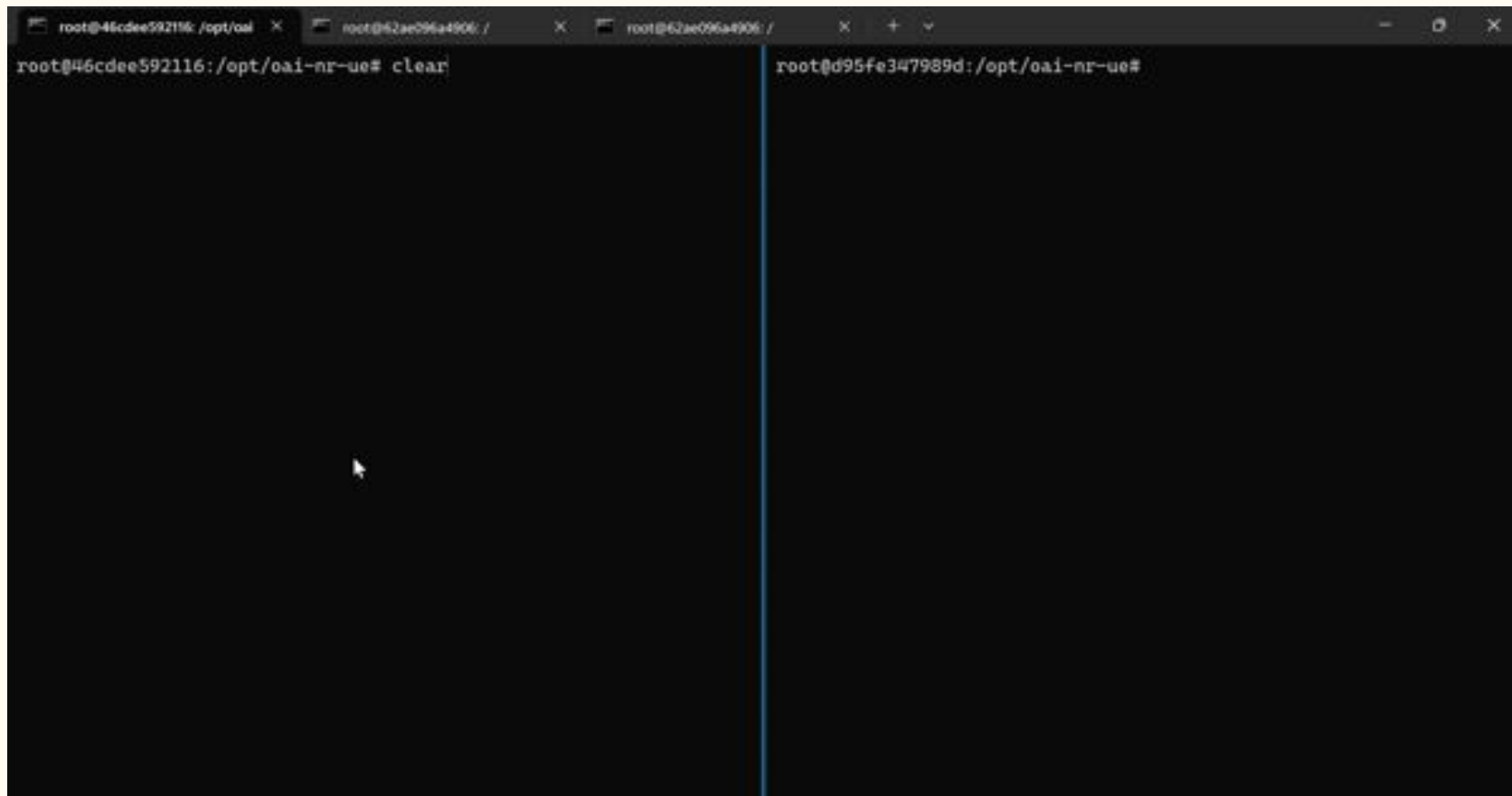
- Added propagation of node status throughout the network
- Changed the scenario of the topography



- Built CU-DU Split via Docker.



Demo



A terminal window with three tabs. The first tab is active and shows the command 'clear' being executed. The second and third tabs are inactive. The terminal background is black with white text.

```
root@46cdee592116:/opt/oai# clear
```

```
root@d95fe347989d:/opt/oai-nr-ue#
```

Future Plans

- Get familiar with srsRAN
- Implement full system in RabbitMQ
- Implement CU-DU Split via Software Defined Radio
- Finish up Json Parser in LISP; potentially replace Emacs with just SBCL compiler in Linux