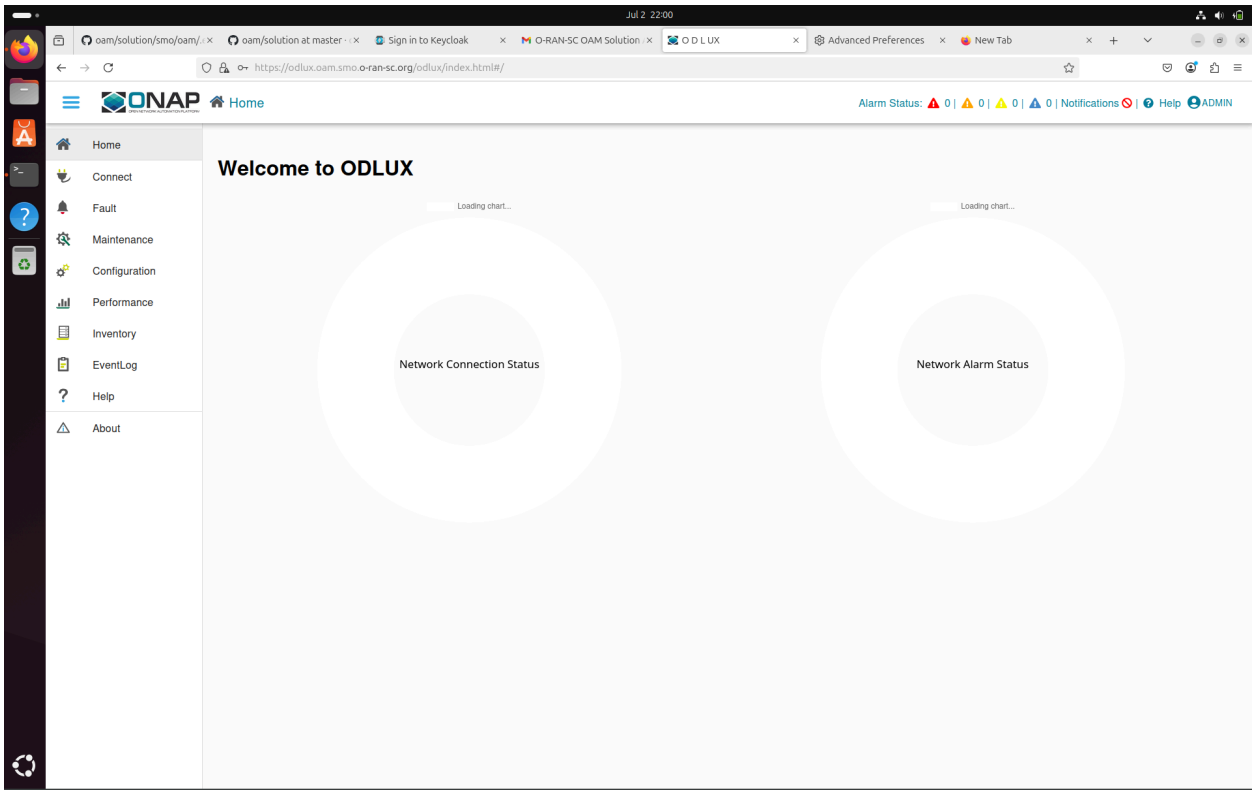
Relevant Documents



Basics of kubernetes and minikube
https://kubernetes.io/docs/tutorials/hello-minikube/

Docker docs
https://docs.docker.com/get-started/
https://labs.play-with-docker.com/

O-RAN Repo
https://gitlab.eurecom.fr/oai

O-RAN Docker implementation ?
https://gitlab.eurecom.fr/oai/cn5g/oai-cn5g-fed/-/tree/develop

Open source O-RAN 5G CU/DU solution from Software Radio Systems (SRS)
https://github.com/srsran/srsRAN_Project

https://docs.srsran.com/projects/project/en/latest/
https://docs.srsran.com/projects/project/en/latest/tutorials/source/k8s/source/index.html
https://github.com/o-ran-sc/it-tifg?scrlybrkr=07a53424

Tools Mentioned ^^
http://grafana.com/oss/grafana/
https://helm.sh/docs/ (package manager for kubernetes)

Probably relevant stuff in here
https://lf-o-ran-sc.atlassian.net/wiki/spaces/ORAN/overview?mode=global

5G Implementation
https://github.com/open5gs/open5gs/blob/main/docs/_docs/guide/01-quickstart.md
dcatena-node-node1-2.sb9.orbit-lab.org-2025-07-02-03-11-02.ndz

```
 INFO node1-2.sb9.orbit-lab.org:
 INFO node1-2.sb9.orbit-lab.org: - Saving image of '/dev/sda' on node 'node1-2.sb9.orbit-lab.org'
 INFO node1-2.sb9.orbit-lab.org:   to the file 'dcatena-node-node1-2.sb9.orbit-lab.org-2025-07-02-03-11-02.ndz' on host '10.19.0.42'
 INFO node1-2.sb9.orbit-lab.org:
 INFO property.started: started = "true" (String)
 INFO exp:
 INFO exp: - Saving process started at: 2025-07-02 03:11:12 +0000
 INFO exp:   (this may take a while depending on the size of your image)
 INFO exp: - Saving disk image of 'node1-2.sb9.orbit-lab.org' finished with success.
 INFO exp: - Saving process completed at: 2025-07-02 03:16:12 +0000
 INFO exp:
 INFO EXPERIMENT_DONE: Event triggered. Starting the associated tasks.
```

INFO NodeHandler:
INFO NodeHandler: Shutting down experiment, please wait...
INFO NodeHandler:
INFO NodeHandler: Shutdown flag is set - Turning Off the resources
INFO run: Experiment pxe_slice-2025-07-02t03.05.49.333+00.00 finished after 10:27

dcatena@console:~$

https://github.com/o-ran-sc/it-tifg

Steps to setup Python:
Step-1 :
sudo apt update && sudo apt install -y make build-essential libssl-dev zlib1g-dev libncurses-dev libbz2-dev libreadline-dev libsqlite3-dev wget curl llvm libncursesw5-dev xz-utils tk-dev libxml2-dev libxmlsec1-dev libffi-dev liblzma-dev

Step-2:
cd /usr/src && sudo wget https://www.python.org/ftp/python/3.12.0/Python-3.12.0.tgz && sudo tar xvf Python-3.12.0.tgz && cd Python-3.12.0

Step-3:
sudo ./configure --enable-optimizations && sudo make -j$(nproc) && sudo make altinstall

Step-4:
python3.12 --version

Steps to create Virtual environment:

Step-1:
cd /root

(or)
cd /home/yourusername

Step-2:
python3.12 -m venv .venv

Step-3:
source .venv/bin/activate

OPEN DAYLIGHT:

STEP 1:
Setup ubuntu -> Microsoft Store -> Ubuntu 24.04.1 LTS (thin any LTS is fine)

(to get to your actual files do cd /mnt/c/Users/…….)

STEP 2:
Need to install JAVA 21
Follow Steps ->
sudo add-apt-repository ppa:openjdk-r/ppa
sudo apt update
sudo apt install openjdk-21-jdk -y

nano ~/.bashrc ->

place at bottom
export JAVA_HOME=/usr/lib/jvm/java-21-openjdk-amd64
export PATH=$JAVA_HOME/bin:$PATH

source ~/.bashrc
STEP 3:

Go to OpenDaylght and download the latest tar ->
https://docs.opendaylight.org/en/latest/downloads.html

Then do -> tar -xvzf (filename) -> cd (filename)
Then run OpenDaylight-> ./bin/karaf

Run these n the OpenDaylight:
feature:install odl-restconf
feature:install odl-netconf-topology
feature:install odl-netconf-connector-all

STEP 4:
Now that should be set up so you can connect to the the url
http://localhost:8181

You have to change this in the code (VS Code ctrl + SHFT + f -> loo for https://odlux.oam.smo.o-ran-sc.org and replace all with http://localhost:8181)
No vs code then have to do it all manually

You also have to change ODL_CONTROLLER_PASSWORD in the Makefile to “admin”

The framework should run then

Did not get the grafana and timescaledb set up or working

Image:
"jsharshitha-node-node1-1.sb1.orbit-lab.org-2025-06-14-23-42-43.ndz"
june-14-2025. Finished setting up open daylight and all requirements for running testcases.