# OSC Lab in Taiwan (NTUST, NYCU, CHT, Auray)

### **Purpose**

Duplicate the environment of OSC Lab. in New Jersey.

Focus on O-DU integration and security tests.

#### Status

- O-DU integration is the top priority. O-DU-Low and O-DU High Integration (I Rel.) with Intel and Radisys are ongoing.
- Installation of Radisys O-CU Binary is ongoing.
- VIAVI TM500 is available.
- · RIC Test is ready to use.

#### Access

Access is limited, and resource sharing is not yet available.

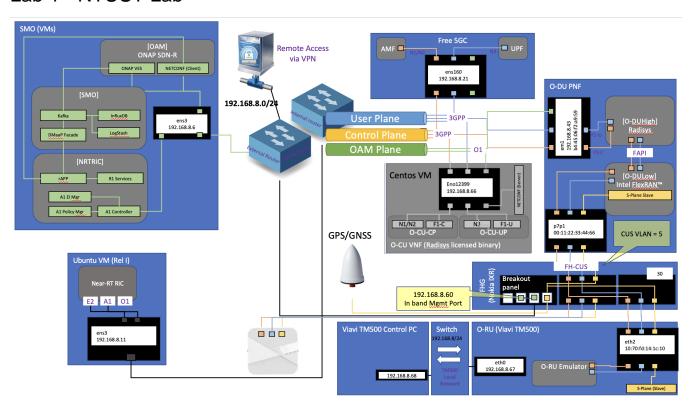
For lab access, please e-mail the lab contact; provide your name, email, business affiliation, and reason for access. This is often in relation to an OSC project (Projects) and therefore is facilitated through the Project Technical Lead (PTL).

Contact: Professor Ray-Guang Cheng, National Taiwan University of Science and Technology (NTUST)

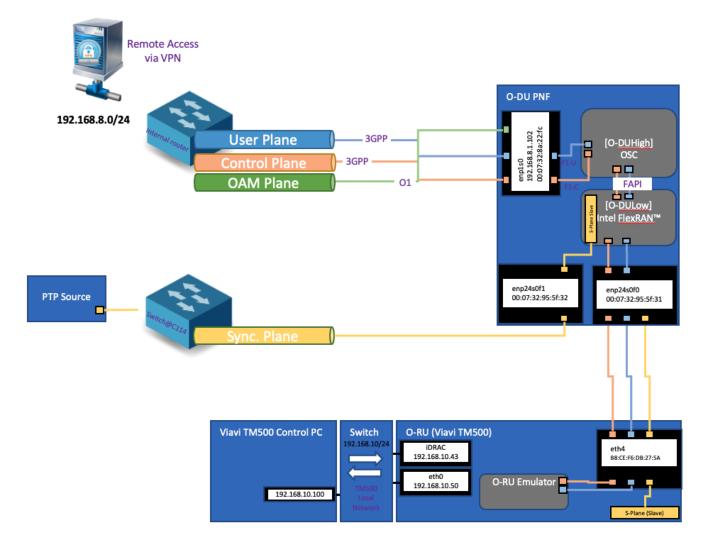
Email: crg@mail.ntust.edu.tw

### Diagram

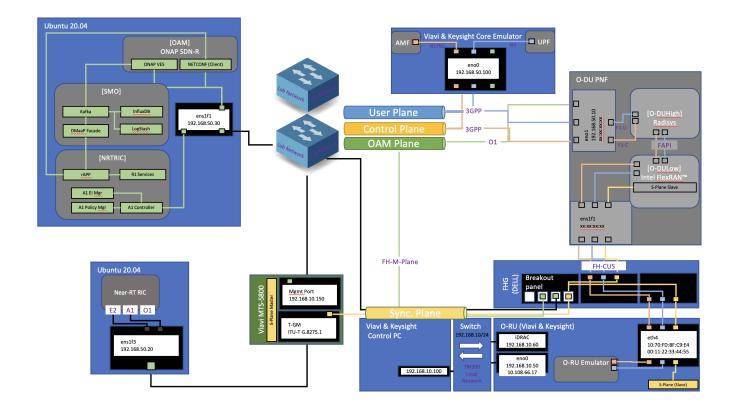
## Lab 1 - NTUST Lab



## Lab 3 - CHT Lab



Lab 4 - Auray Lab



### OSC Taiwan Lab. Elements

**Physical Servers** 

Virtual Machines

Software Deployment Allocations

#### O-DU (High and Low)

The integration of O-DU Low (FlexRAN 21.11) and O-DU High in Rel. I is ongoing.

#### O-CU

The installation of OpenAirInterface (OAI) 2022 w40 CU is done.

Partial integration of OSC O-DU High and OAI CU is done. Registration Complete procedure is passed.

The installation of commercial O-CU provided by Radysis is ongoing.

#### **Near-RT RIC**

Current Status(Feb 21, 2024)

- Deployment:
  - Rel. H Near-RT RIC is deployed in an OpenStack VM.
  - Rel. I Near-RT RIC is deployed in an OpenStack VM.
- Integration:
  - E2 Interface:
    - Integration between Rel. F Near-RT RIC and VIAVI RIC Test (v1.8).
      - ▼ E2 Setup Procedure
      - ▼ RIC Subscription Procedure
      - RIC Indication Procedure

#### **5G Core**

free5GC by NYCU, Taiwan, is tested.

SABox by Nokia Lab., France, is used.

#### **Software Simulators**

VIAVI TeraVM RIC Tester v. 1.8 is used as the RAN simulator for emulating the E2 Nodes for Near-RT RIC integration test.

#### **Hardware Simulations**

Viavi TM500 is provided in NTUST Lab. , ChungHwa Telecom (CHT) Lab., and Auray Lab. for O-DU testing (the same as that used in OSC New Jersey Lab.)

#### **Specialty Hardware**

Nokia IXR 7250 Fronthaul Gateway is used (the same as that used in OSC New Jersey Lab.)

UpiSpace Fronthaul Gateway is used.

Foxconn Indoor O-RU (RPQN-7801, 3.7-3.8GHz 4T4R).