

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.

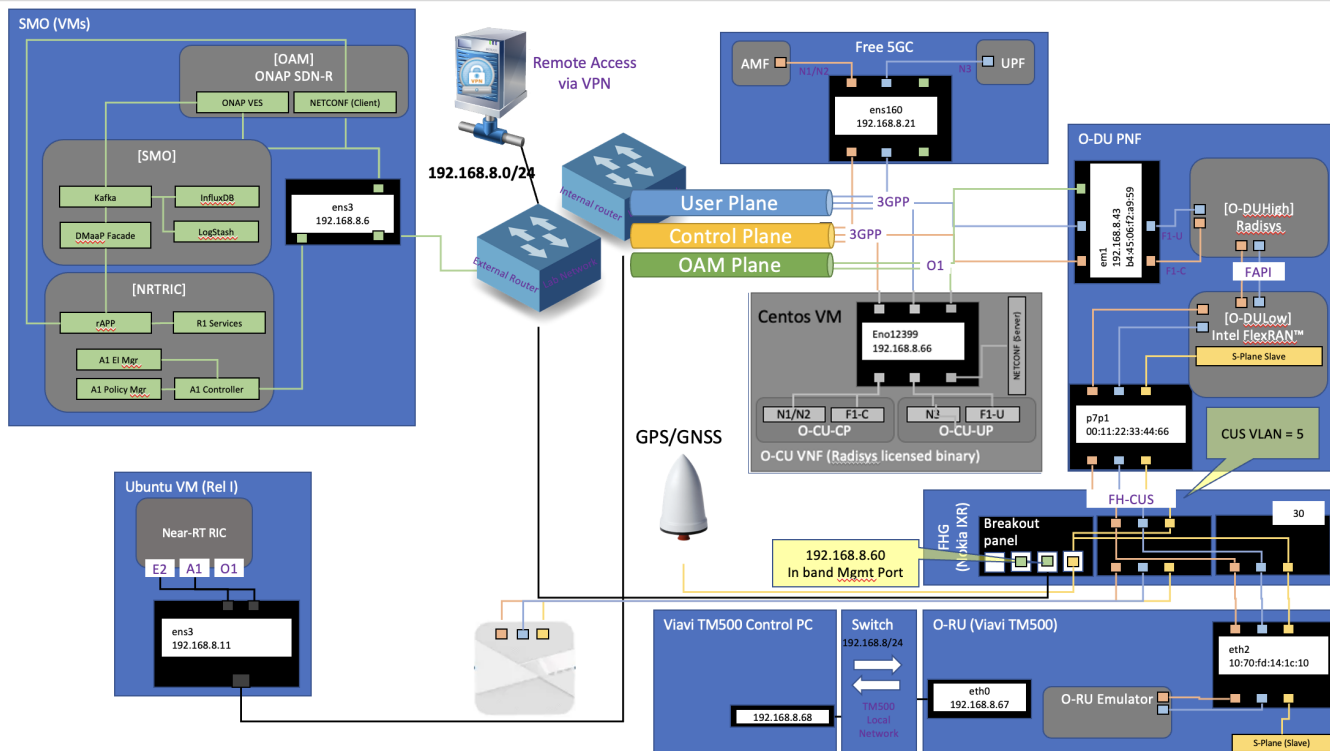
For lab access, please e-mail the lab contact; provide your name, email, business affiliation, and reason for access. This is often in relation to an OSC project ([Projects](#)) and therefore is facilitated through the Project Technical Lead (PTL).

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Email: crg@mail.ntust.edu.tw

Diagram

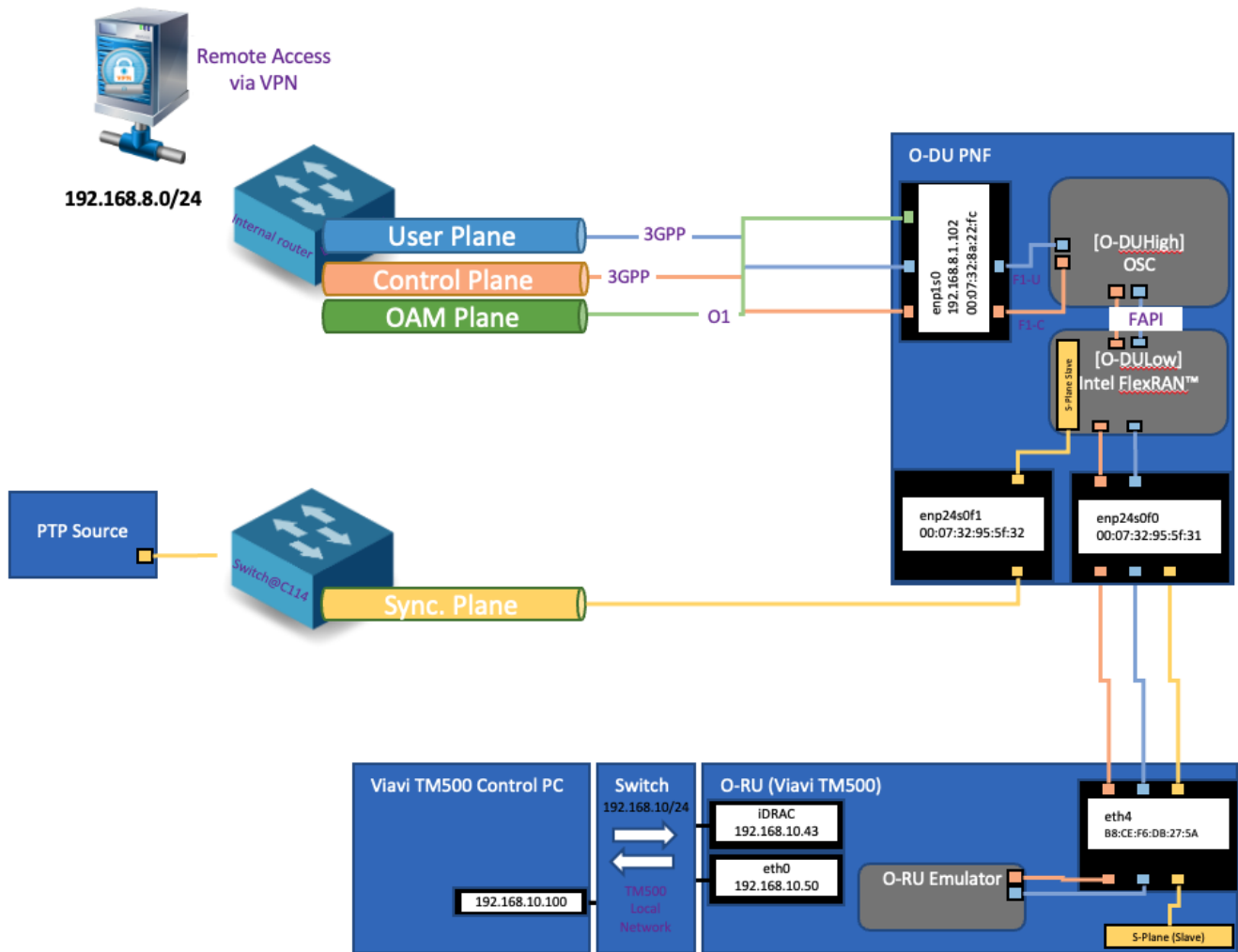
Lab 1 - NTUST Lab



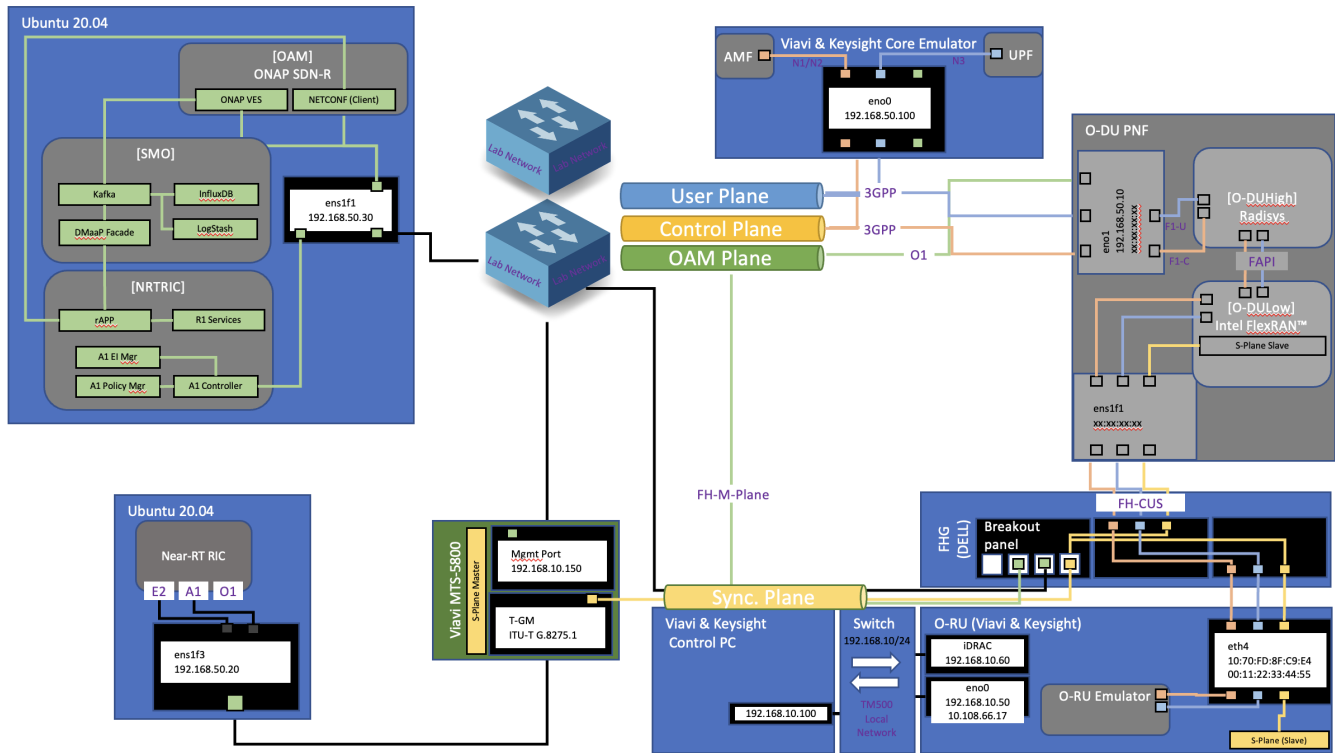
Lab 2 - NYCU Lab

TBA

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 Radisys 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).