O-DU High Sprint 1 Demo
O-DU High Architecture
O-DU High Sprint 1 Demo

F1-C interface demonstration of following messages:

- F1AP Setup Request
- F1AP Setup Response
- GND DU Configuration Update
- GNB DU Configuration Update Ack
O-DU High Sprint 2 Demo
F1-U Data path flow
Limitations

• UE, RB and tunnel configurations are static
• DL data path ends at MAC Stub
• UL data is triggered from MAC Stub
• UL Data is pumped from stub only when a DL data received
• SDU segmentation/reassembly at RLC is not presented in this demo
O-DU High Sprint 3 Demo
O-RAN Architecture Overview with Near-RT RIC interfaces

Service management & Orchestration Framework

Non-RT RIC

Near-RT RIC

E2 Node

O-eNB

E2

E2 Node

O-CU-CP

E2

E2 Node

O-CU-UP

E2

E2 Node

O-DU

E2

Open Fronthaul

O-RU

A1

E1

E1

F1-C

F1-U
Scope of Demo

• E2 initialization between O-DU and Near RT RIC
  • SCTP four-way handshake
  • E2 Setup Request
  • E2 Setup Response

• Traffic Steering Use-case
  • RIC Subscription Request
  • RIC Subscription Response
  • RIC Indication Message
Traffic Steering Use Case

ODU

DU APP

SCTP

RIC STUB

Decodes and stores the received buffer in DU APP
Determines the target function using RAN Function ID and detects the Event trigger IE

Encodes RIC Subscription response
And fills RIC Admitted List IE as Report

RIC Subscription Request
RIC Action Type: REPORT

RIC Subscription Response

RAN Function ID
RIC Indication Message
RIC Indication Type: REPORT

RIC Indication Message
RIC Indication Type: REPORT

Decodes received Buffer.
Displays in console

Encodes the RIC Request ID, RAN Function ID, and RIC subscription details in RIC Subscription Request

Decodes received Buffer.
Displays in console
Open Items

1. Port 38482 is being used for E2 interface since this has not been specified.
2. Implementation of only Report RIC Action Type is supported, as per Traffic Steering Use-case.
3. Content of below IEs are not clear in specification:
   - Section 9.2.6, RIC event Trigger definition
   - Section 9.2.16, RIC indication Header
   - Section 9.2.17, RIC Indication Message

Spec versions:
   ORAN-WG3.E2AP-v01.00
   ORAN-WG3.E2SM-v01.00
4. Support for periodic reports missing, due to lack of clarity in E2 spec.
5. KPIs reported in RIC indication message are mocked and do not reflect actual values.
6. Dissector is not available to show the E2 protocol in wireshark.
Thank You