

# 5G RAN Management through an SMO/non-RT RIC via the O1 Interface

We demonstrate a first prototype of the O-RAN O1 interface in the OpenAirInterface (OAI) stack. We deploy the OAI 5G O-DU and O-CU together with an O1 adapter. A Service Management Orchestrator (SMO) manages the O-DU via the O1 interface. The SMO is implemented through an ONAP-based non-RT RIC which monitors and manages the O-DU component via the SDN Controller (SDNC with SDN-R feature set). Specifically, if the O-DU load is high, ONAP receives an alarm notification through the (O-RAN-specified) VES format, and leverages the SDNC to reconfigure the cell bandwidth of the O-DU on-the-fly to provide better service to the user. Conversely, the SMO scales the bandwidth of the O-DU down when it is not needed. Furthermore, ONAP uses Data Collection, Analytics and Events (DCAE) engine to collect performance metrics (PM).

