
OAI OAM PG Roadmap

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In a nutshell

- ▶ Mosaic5G: Founded by Eurecom and launched in 2016
- ▶ Merged with OpenAirInterface in May 2021
- ▶ 2023: Renaming to OAM and refocus on E2, O1, and ETSI Multi-Access Edge Computing (MEC)



FlexRIC

- ▶ O-RAN-compliant near-RT RIC
- ▶ Features standard service models and additional custom ones
- ▶ Design with customizability and speed in mind

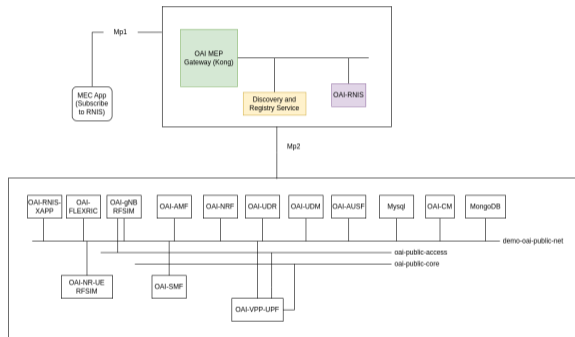
O1 support

- ▶ O1 configuration management via NetConf for CU-CP/UP, DU
- ▶ Implement fault-management and alarm handler
- ▶ Performance reporting towards end of the year



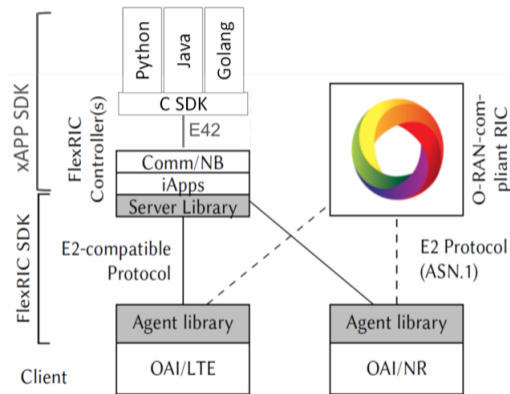
Multi-Access Edge Computing (MEC)

- ▶ Release of platforms for 5G
 - ▶ ETSI Multi-Access Edge Computing Platform (MEP)
 - ▶ Radio Network Information Service (RNIS)
- ▶ Leverages FlexRIC to extract information for RNIS



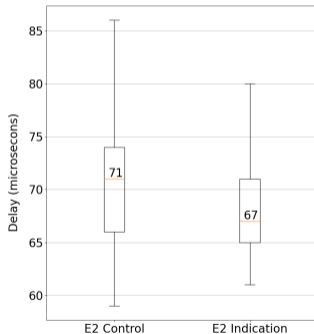
FlexRIC: Flexible SD-RAN Platform as SDK

- ▶ FlexRIC is an O-RAN-compliant E2 Agent, near-RT RIC, and xApp SDK
- ▶ It provides a number of service models
 - ▶ E2SM-KPM and E2SM-RC (E2SM-CCC to follow)
 - ▶ Custom: E2SM-RRC, E2SM-PDCP, E2SM-RLC, E2SM-MAC, E2SM-GTP, E2SM-SC and E2SM-TC
- ▶ Designed to be ultra-lean (highly efficient for resource-restricted UC)
- ▶ Current release v1.0.0



FlexRIC: Latencies measured

- ▶ O-RAN nearRT-RIC specifies control loops from 10 ms to 1 second.
- ▶ FlexRIC's ultra lean design permits much restricter scenarios.



FlexRIC: Comparison to O-RAN RIC/ONF SD-RAN

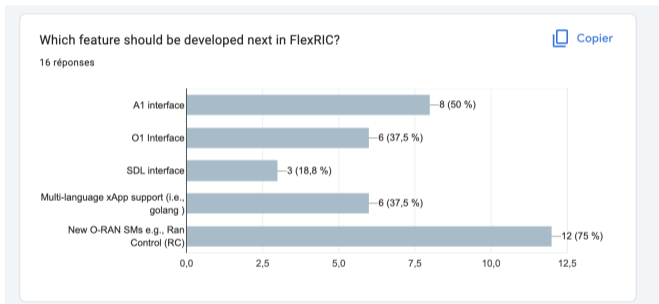
Criteria	O-RAN RIC	ONOS SD-RAN	FlexRIC
Zero Overhead	No	No	Yes
Enc/Dec	ASN.1	ASN.1	ASN.1, FB, Plain
E2AP	v2.0*	v2.0	v2.0*
Multi-Lang	Yes	Yes	Yes
E2 Nodes	RadiSys, others	OAI, SRS, RadiSys	OAI, SRS, AMR
Service Models	Embedded	Embedded	Pluggable



- ▶ **Merge of E2 agent to openairinterface5g repository**
- ▶ Introduction of KPM v2.0 and interoperability with OSC kpimon xApp(s)
- ▶ Introduction of RC v1.3 and interoperability with OSC rc xApp(s)

Results from last poll

- ▶ Adding RC was the most popular request followed by A1.



Outlook Q1/Q2

Q1 2023

- ▶ E2 Agent integration in OAI
- ▶ DB integration in FlexRIC
- ▶ Release of OAI-MEC Platform (MEP) with Radio Network Service (RNIS)

Q2 2023

- ▶ E2AP v2.0
- ▶ O1 Configuration Management via Netconf for CU-CP/UP
- ▶ KPM v2.03 Service Model Extensions and KPM xApps
- ▶ Basic RAN Control (RC) v1.03 Service Model and RC xApp
- ▶ Interoperability with ONF SD-RAN and O-RAN RIC



Outlook Q3/Q4

Q3 2023

- ▶ RAN Slicing xApp
- ▶ O1 Configuration Management via Netconf for DU
- ▶ Fault Management, VES Client and Alarm Handler via O1-REST for CU-CP/UP
- ▶ OAI MEP DNS Redirection and Traffic Redirection Service via PCF
- ▶ Cell Configuration and Control (CCC) v1.01 Service Model and CCC xApp

Q4 2023

- ▶ Mobility Management xApp via nearRT-RIC
- ▶ FlexRIC A1 Interface
- ▶ Traffic Control in gNB and nearRT-RIC integration
- ▶ Performance Reporting via O1 Interface for CU-CP/UP and DU
- ▶ L4S first implementation, partially replacing E2SM-TC



Thanks!

<https://openairinterface.org/mosaic5g/>

<https://mosaic5g.io/>

<https://gitlab.eurecom.fr/mosaic5g/flexric/>