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)
OAM Stack

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
- Performace 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)
- 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

<table>
<thead>
<tr>
<th>Criteria</th>
<th>O-RAN RIC</th>
<th>ONOS SD-RAN</th>
<th>FlexRIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zero Overhead</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Enc/Dec</td>
<td>ASN.1</td>
<td>ASN.1</td>
<td>ASN.1, FB, Plain</td>
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<tr>
<td>E2AP</td>
<td>v2.0*</td>
<td>v2.0</td>
<td>v2.0*</td>
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<tr>
<td>Multi-Lang</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>E2 Nodes</td>
<td>RadiSys, others</td>
<td>OAI, SRS, RadiSys</td>
<td>OAI, SRS, AMR</td>
</tr>
<tr>
<td>Service Models</td>
<td>Embedded</td>
<td>Embedded</td>
<td>Pluggable</td>
</tr>
</tbody>
</table>
Short-term

- 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/