

Non-RealTime RIC in O-RAN Software Community

OSC Non-RealTime RIC project (NONRTRIC)

Update to O-RAN Alliance F2F meeting

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O-RAN SC: Non-RealTime RIC (NONRTRIC)

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Wiki: <https://wiki.o-ran-sc.org/display/RICNR>

JIRA: <https://jira.o-ran-sc.org/projects/NONRTRIC/issues>

Gerrit:

- nonrtric : <https://gerrit.o-ran-sc.org/r/admin/repos/q/filter:nonrtric> (13 repos)
- portal/nonrtric-controlpanel : <https://gerrit.o-ran-sc.org/r/admin/repos/portal/nonrtric-controlpanel>
- sim/a1-interface : <https://gerrit.o-ran-sc.org/r/admin/repos/sim/a1-interface>

Docs:

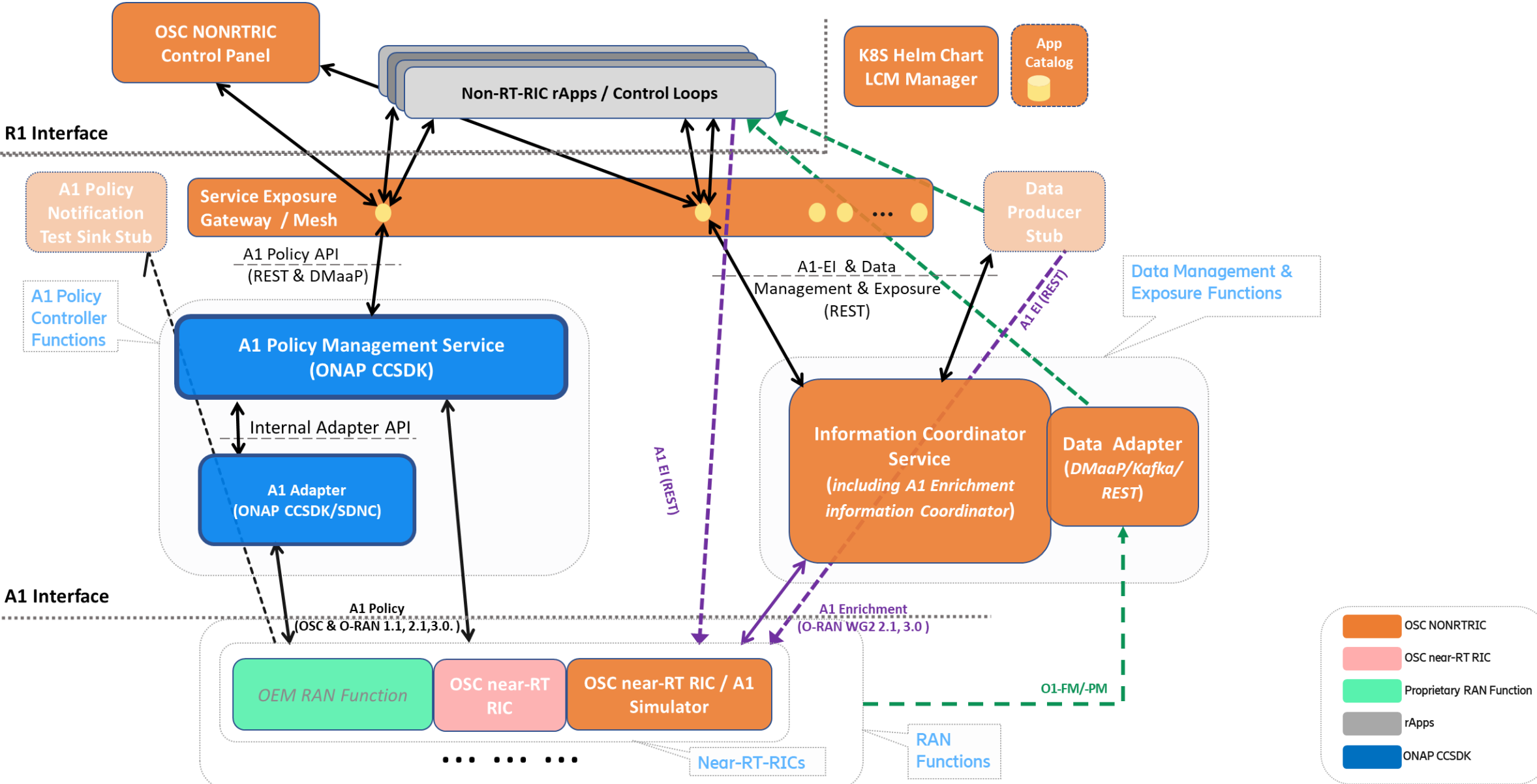
- nonrtric : <https://docs.o-ran-sc.org/projects/o-ran-sc-nonrtric>
- portal/nonrtric-controlpanel : <https://docs.o-ran-sc.org/projects/o-ran-sc-portal-nonrtric-controlpanel>
- sim/a1-interface : <https://docs.o-ran-sc.org/projects/o-ran-sc-sim-a1-interface>

Email List:

- OSC "[discuss](https://lists.o-ran-sc.org/q/discuss)" mailing list: <https://lists.o-ran-sc.org/q/discuss>: discuss@lists.o-ran-sc.org
- Please use hashtag **#nonrtric**

Meetings: <https://wiki.o-ran-sc.org/display/RICNR/Meetings>

NONRTRIC: Architecture – OSC Release G



OSC G Release (Dec '22):

- 1: R1 Service Exposure & Management
- 2: R1 Data Management & Exposure
- 3: rApp Manager
- 4: Continue A1-Policy & A1-Enrichment-Information evolution (& R1-A1)
- 5: Sample use cases (rApps)
- 6: Testing, Maintenance & Housekeeping

NONRTRIC: Dev. Priorities for OSC Release G (Dec '22)

R1 Specification in this area continues.
All work here is pre-spec.
We will evolve as specifications mature.

1: R1 Service Exposure & Management

- Demonstrate Service Exposure enforcement enabling service isolation & exposure
 - Create/apply K8S configurations to isolate platform services and rApp microservices, then enforce secure controlled access between services
 - Demonstrate fine-grained service-specific access control & exposure enforcement for non-microservice parts of rApps
- Demonstrate 3GPP CAPIF-aligned Service Registry & Exposure Manager
 - Registry for service producers & consumers - support service discovery
 - Extend to trigger service sandboxing & exposure set-up at service registration time
 - Extend to provide necessary tokens/credentials etc. to access service (exposure) for authenticated consumers

NONRTRIC: Dev. Priorities for OSC Release G (Dec '22)

R1 Specification in this area continues.
All work here is pre-spec.
We will evolve as specifications mature.

2: R1 Data Management & Exposure

- Align with emerging proposals for R1-DME where possible
- R1 DME Data Catalog:
 - Extend current Information Coordinator Service to act as a Data Catalog
 - .. as proposed in O-RAN WG2 R1-DME discussions
- R1 Data delivery & filtering (kafka & REST)
 - Securely subscribe & manage subscription to filtered data (e.g. PM data, data for ML training, etc.)
 - Demonstrate O1-PM (RAN->rApp), A1-EI jobs (rApps->RAN) & arbitrary data jobs (e.g. rApp->rApp)
 - Demonstrate end-to-end flow of filtered O1-PM(Bulk) from RAN to rApp

O-RAN specification work continues.

All work here is pre-spec.

We will evolve as specifications mature.

NONRTRIC: Dev. Priorities for OSC Release G (Dec 22)

3: rApp Manager

- Build on ONAP “Automation Composition” model & platform to implement rApp use cases
- Demonstrate controlled on-boarding & LCM rApps with & without μ Service
 - Coordinate investigation with ONAP to investigate support for ASDs in rApp model & LCM
- Overlap with Service Exposure work to examine role of an rApp Manager to support controlled exposure & LCM of μ Service and non- μ Service parts of an rApp
- *... requires use cases*

NONRTRIC: Dev. Priorities for OSC Release G (*Dec '22*)

4: Continue A1-Policy & A1-Enrichment-Information evolution (& R1-A1)

- Small extensions to A1-Policy & A1-Enrichment-Information specs continue
- Southbound: A1 Interface
 - Evolve A1-Policy Management Service & Information Coordinator Service (A1-EI)
- Northbound: R1-A1(P) & R1-DME Interfaces
 - Evolve A1-Policy Management Service & Information Coordinator Service as R1 discussions continue

NONRTRIC: Dev. Priorities for OSC Release G (*Dec '22*)

5: Sample use cases (rApps)

- Requirements Drivers for rApp/R1 development
 - High degree of cross-project integration activity
1. O-DU Slice Assurance (RSAC Mandated)
 2. O-RU-FH recovery (RSAC Mandated)
 3. Healthcheck / Hello-World (RSAC Mandated)
 4. ONAP 5G-SON (rApp/platform support for existing ONAP use case)
 5. Grow existing set of “Hello World” test cases in NONRTRIC test suite

NONRTRIC: Dev. Priorities for OSC Release G (*Dec '22*)

6: Testing, Maintenance & Housekeeping

- Continually growing Function Test & Integration Test environment (as capabilities are added)
- Integration
 - Support integration, deployment & configuration of SMO/Non-RT-RIC related functions & usecases in OSC Integration env.
- Project coordination, Backlog grooming, Documentation, Delivery, Reporting, Repo management, Quality assurance, Cross-project alignment, Community demos, O-RAN Standardization support, etc.

