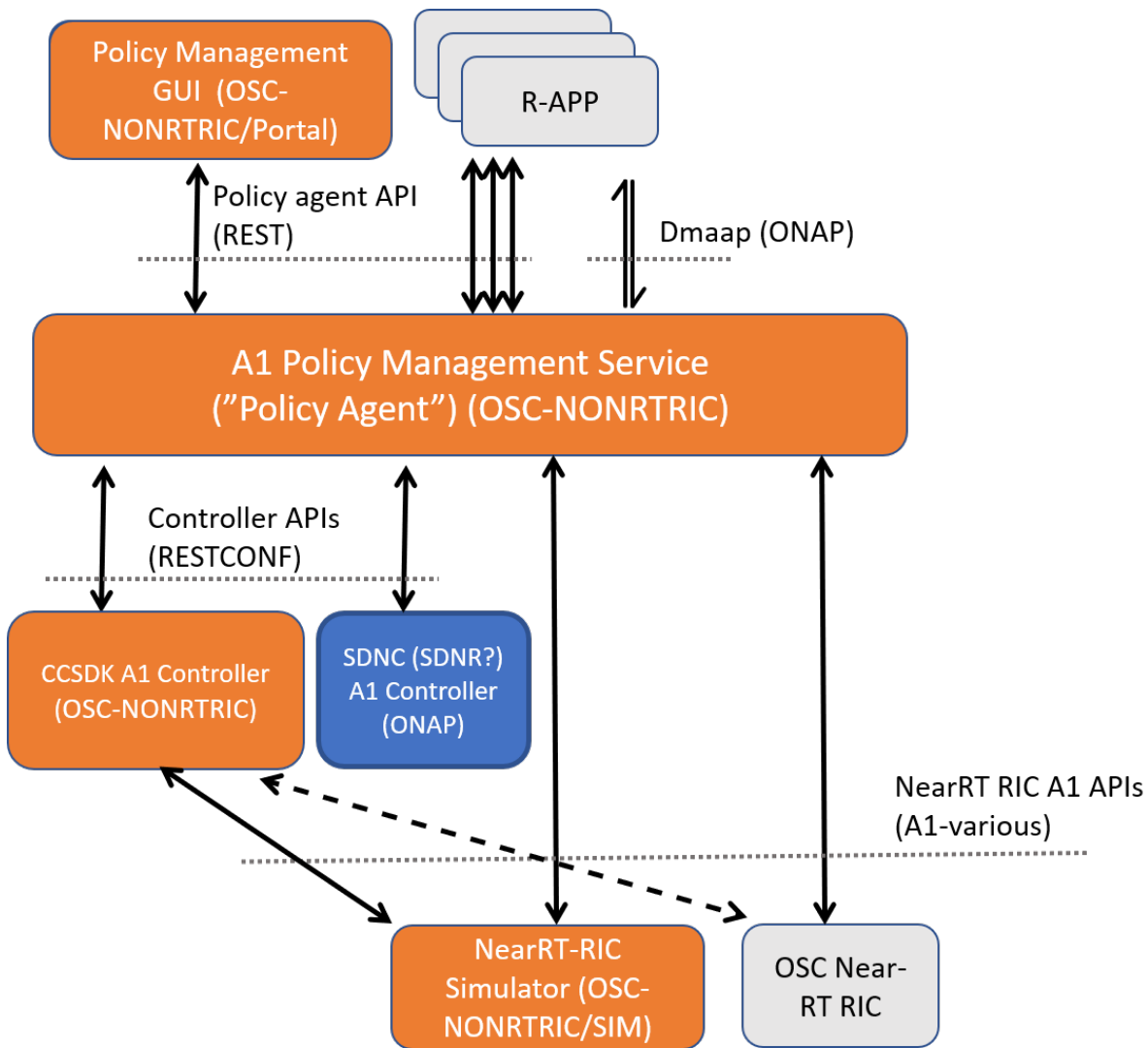


# Release A

## Architecture for Release A:



### NONRTRIC components:

1. Policy Management GUI / NONRTRIC Dashboard
2. Policy agent / A1 Policy Management Service
3. SDNC A1 Controller
4. Near-RT RIC Simulator

The code base for Release A is in the [NONRTRIC](#) source repository (Gerrit)

### Policy Management GUI / NONRTRIC Dashboard

*Graphical user interface*

- View and Manage A1 policies in the RAN (near-RT-RICs)
- Interacts with the Policy agent's NBI (REST API)
- Graphical A1 policy creation/editing is model-driven, based on policy type's JSON schema
- Implementation:
  - Frontend: Angular framework

- Backend Java Springboot application
- *(To be moved to portal/nonrttric-control/panel repo)*

Please refer [this](#) developer guide to set up in your local environment.

## Policy Agent / A1 Policy Management Service (“Policy Agent” v1)

The Policy Agent is a micro service which maintains a transient repository of:

- All configured A1 policies instances in the network. Each policy is targeted to a Near-RT-RIC instance and is owned by a 'service' (R-APP or the NONRTRIC Dashboard).
- All NearRT RICs in the network. This information can be maintained using the ONAP CDS database (which is using the Cloudify Consul database).
- All Policy types for all Near-RT-RICs
- All configured Policy instances in the network

It provides :

- Unified REST & DMAAP APIs for managing A1 Policies in all near-RT-RICs
- Synchronized view of policy instances for each R-APP (*soon*)
- Synchronized view of policy instances in all near-RT-RICs
- Synchronized view of policy types in all near-RT-RICs
- Policy Query API (e.g. per near-RT-RIC, per R-APP (*soon*), per policy type)
- Unified nearRTRIC-ID to nearRTRIC-address mapping (e.g. can include mapping to A&A1, CMDDBs etc to “find” near-RT-RICs - *soon*)
- Placeholder “O1 *ManagedElement*” mapping database interface to find appropriate near-RT-RIC to address A1 operations for required RAN elements (e.g. connection to A&AI, RuntimeDB, other CMDDBs etc - *soon*)
- Monitors all near-RT-RICs and recovers from inconsistencies (*multiple strategies - soon*) – e.g. near-RT-RIC restarts
- Support for different Southbound connectors per near-RT-RIC – e.g. different A1 versions, different near-RT-RIC version, different A1 adapter /controllers supports different or proprietary A1 controllers/EMSs

## Controller / A1Adaptor:

*Mediation point for A1 interface termination in SMO/NONRTRIC*

- Implemented as OSGI Feature/Bundles
- A1 Rest southbound
- NETCONF YANG Northbound
- RESTCONF > NETCONF adapter
- Mapping logic / Provider
- Can be included in an any SDNC/CCSDK persona

Please refer this [page](#) guide to set up SDNC in your local environment.

## Near-RT-RIC Simulator:

*Stateful A1 test stub*

- Used to create multiple stateful A1 providers (simulated near-RT-RICs)
- Implemented as a Java Springboot application
- Swagger-based northbound interface, so easy to change the A1 profile exposed
- *(To be moved to sim/a1-interface repo)*