

# Testing End to End call in Release I

This page describes:

- an end-to-end example of manipulating A1 Policies using the H Release functions for A1 Policies.
- an example of using the Information Coordinator service to create/manage Information Types, Producers and Jobs.
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## Overview of the End to End A1-Policy call

Details of the architecture can be found from the following link: [Release I](#)

### Preparation

It is recommended to use [it/dep repo](#) as it has ready to use helm charts and test data to create and populate data into nonrtric k8s deployment.

Instruction can be found in [Deploy NONRTRIC in Kubernetes](#).

### End to end call from Policy Management



### End to End call from NONRTRIC Control Panel (A1 Policy) to A1 simulator

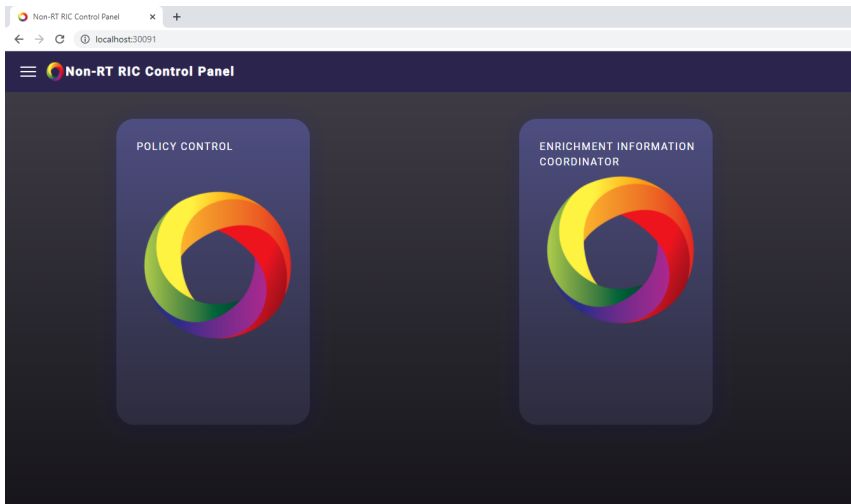
#### Perform Policy Operations via Control Panel

- Open Control Panel in browser. To check which port your control panel is running, the following command can be used:

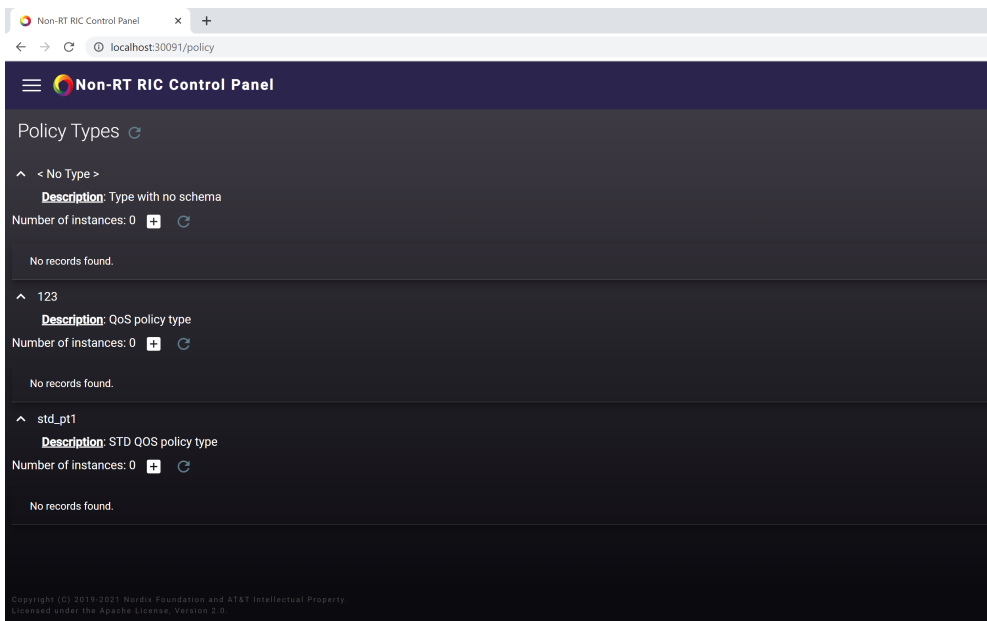
```
kubectl get svc -n nonrtric controlpanel
```

NAME	TYPE	CLUSTER-IP	EXTERNAL-IP	PORT(S)	AGE
controlpanel	NodePort	10.111.91.199	<none>	8080:30091/TCP,8081:30092/TCP	168m

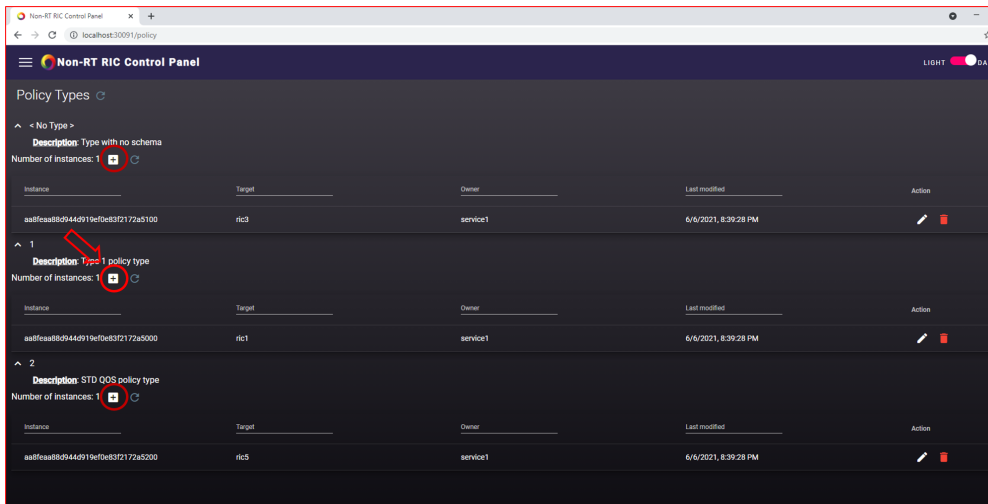
In this case port for HTTP connection would be 30091 and for HTTPS 30092.



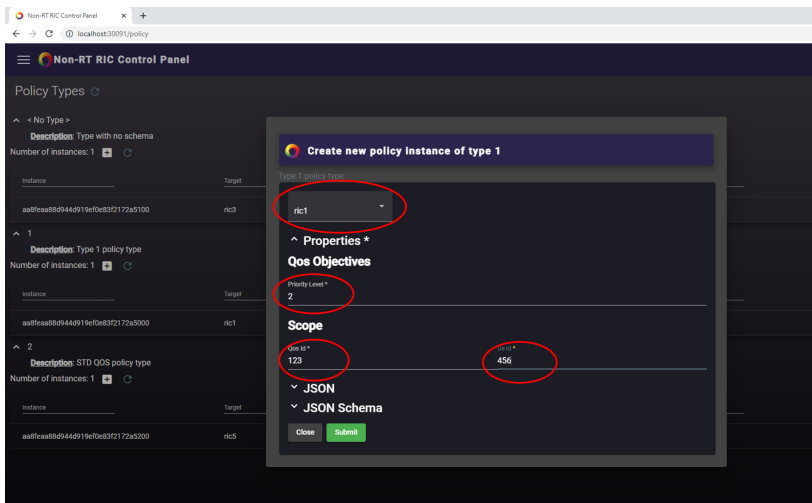
- Click on Policy Control and the screen below with policy types should open



- For each policy type there is a '+' icon to create a new policy of that specific type. Click on '+' icon to create new policy



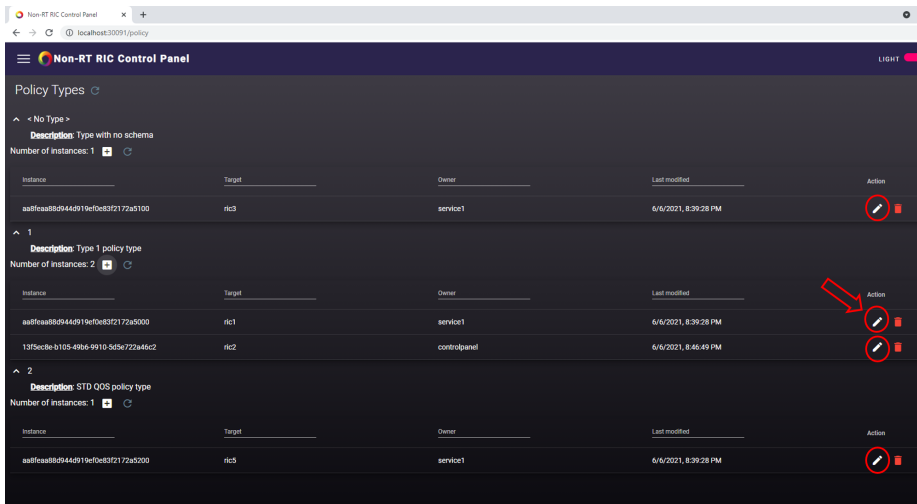
- Choose your *ric* from drop-down menu and provide any arbitrary values for *QoS-ID*, *UE-ID* and *Priority*



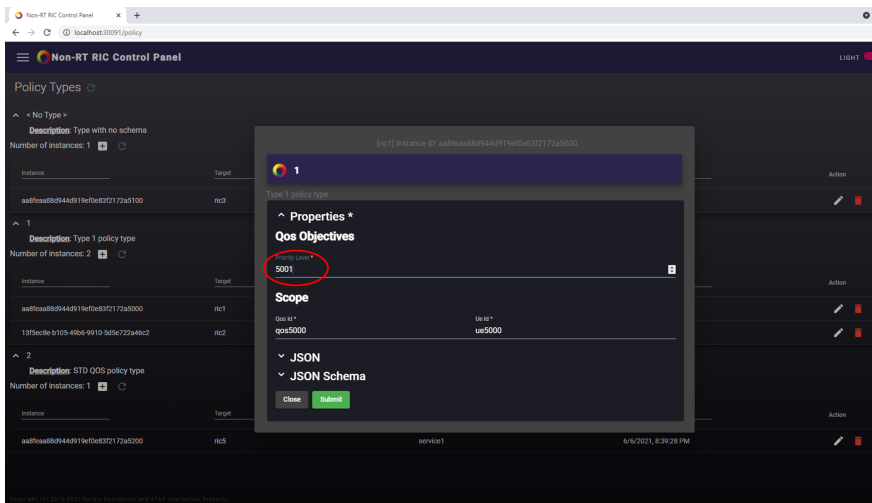
- Submit the policy
- An entry to the chosen A1 simulator (previously called Near-RT RIC A1 Interface) console/log should appear (see, for example, **kubectl logs -n nonrttric a1-sim-osc-0** in case ric1 policy was created):

```
127.0.0.1 - - [08/Jun/2021 11:35:20] "PUT /a1-p/policytypes/1/policies/fd5f8848-575a-4d1c-887e-b16ad24b22b1 HTTP/1.0" 202 -
```

- Click the pen icon to modify any policy

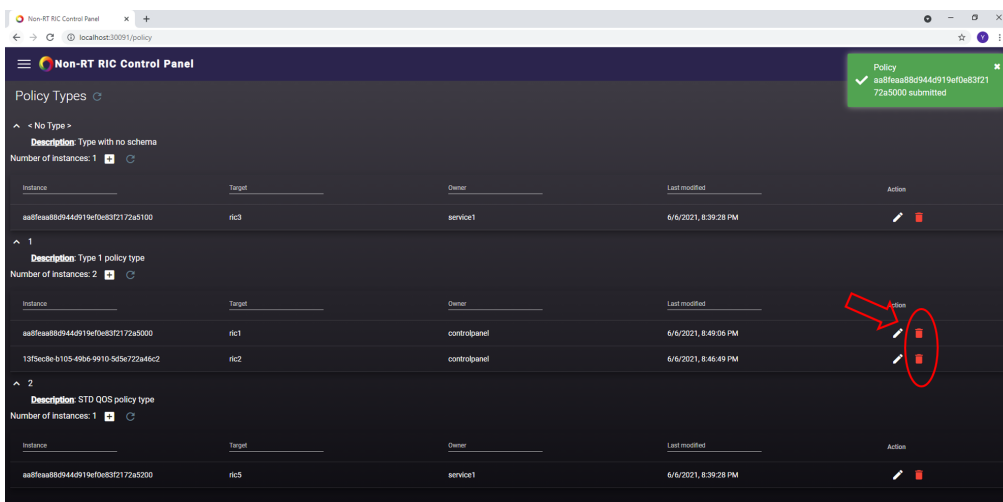


- Modifications are submitted in the same way as in creation, and the resulting simulator log should also be same as the one we saw in creation

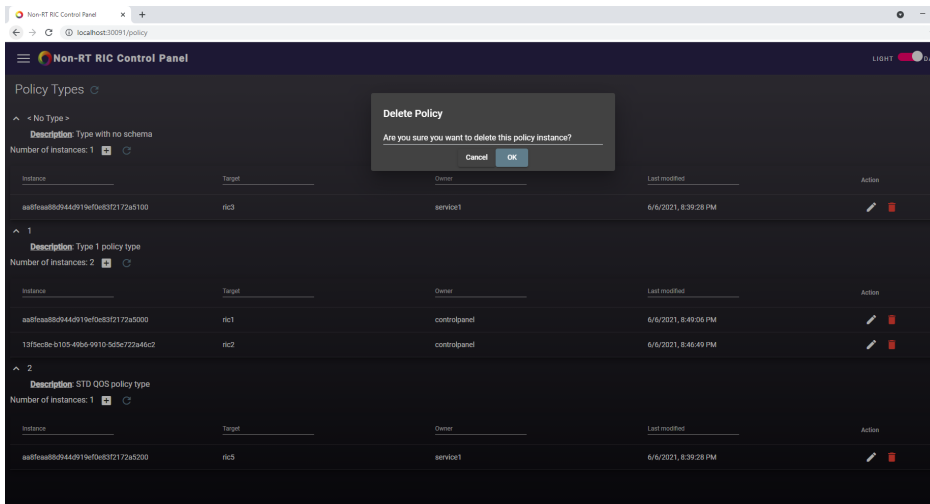


```
127.0.0.1 - - [08/Jun/2021 11:39:38] "PUT /a1-p/policytypes/1/policies/aafeaa88d944d919ef0e83f2172a5000 HTTP/1.0" 202 -
```

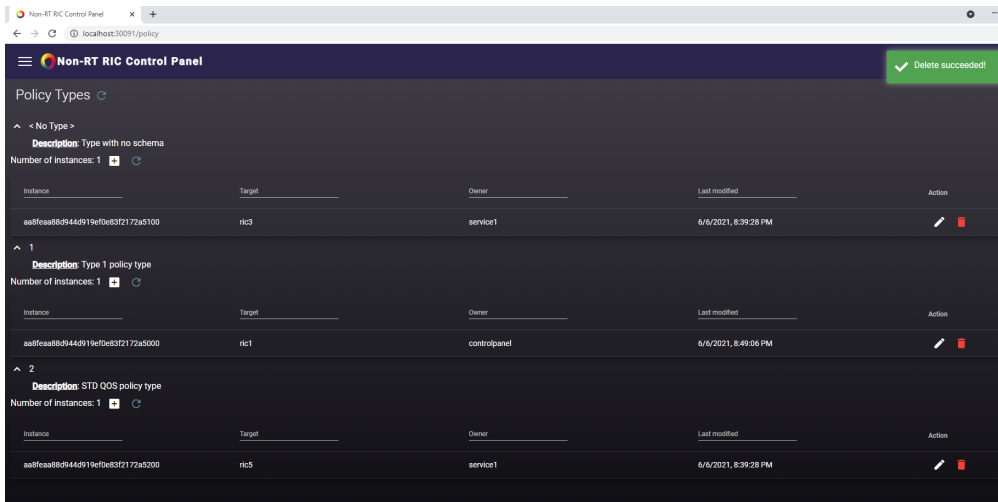
- Delete any policy by clicking the red trashcan icon



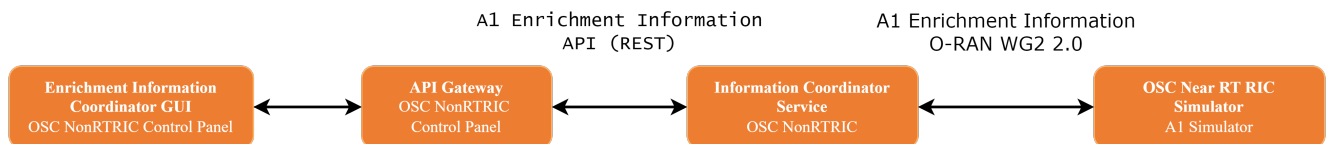
- Confirm deletion and verify the log on simulator side:



```
127.0.0.1 - - [08/Jun/2021 11:43:42] "DELETE /a1-p/policytypes/1/policies/aa8feaa88d944d919ef0e83f2172a5000 HTTP/1.0" 202 -
```



## End to end call from Information Coordinator Service



From the Control Panel, Producer and Jobs can only be listed.

Non-RT RIC Control Panel

Enrichment Information Coordinator

### Producers

Producer ID	Producer types	Producer status
1	type1	ENABLED

### Jobs

☐ auto-refresh

Job ID	Producer ID	Type ID	Owner	Target URI
job1	1	type1	ricsim_g3.1	https://ricsim_g3.1:8185/datadelivery

Items per page: 10 1 - 1 of 1

In Kubernetes cluster setup, The Information Coordination Service (ICS) is not exposed outside, hence the commands for populating Information Jobs /Consumers/Producers need to be run from within the cluster.

In local Kubernetes setup (Docker Desktop, Minikube, etc..), actions such as create, modify and delete, curl can be use to interact with ICS API using NodePort from control panel.

In this example, test data is been used, so there is no real producer connected.

## Type

### Create Type

```
curl -X 'PUT' \
  'http://localhost:30091/data-producer/v1/info-types/type2' \
  -H 'accept: application/json' \
  -H 'Content-Type: application/json' \
  -d '{
    "info_job_data_schema": {
      "$schema": "http://json-schema.org/draft-07/schema#",
      "title": "STD_Type1_1.0.0",
      "description": "EI-Type 1",
      "type": "object"
    }
  }'
```

Response could be both 200 and 201 depending if the command was used to create a new type or to modify an existing one.

Response:

- 200 Type updated
- 201 Type created

### Delete Type

```
curl -X 'DELETE' \
  'http://localhost:30091/data-producer/v1/info-types/type2' \
  -H 'accept: application/json'
```

Response:

- 204 Type deleted
- 404 Type not found

## Producers

## Create Producer

```
curl -X 'PUT' \
  'http://localhost:30091/data-producer/v1/info-producers/2' \
  -H 'accept: application/json' \
  -H 'Content-Type: application/json' \
  -d '{
    "info_producer_supervision_callback_url": "https://producer-stub:8093/callbacks/supervision/prod-a",
    "supported_info_types": [
      "type2"
    ],
    "info_job_callback_url": "https://producer-stub:8093/callbacks/job/prod-a"
  }'
```

Response could be both 200 and 201 depending if the command was used to create a new producer or to modify an existing one.

Response:

- 200 Producer updated
- 201 Producer created

## Delete Producer

```
curl -X 'DELETE' \
  'http://localhost:30091/data-producer/v1/info-producers/2' \
  -H 'accept: application/json'
```

Response:

- 204 Producer deleted
- 404 Producer not found

## Jobs

### Create Job

```
curl -X 'PUT' \
  'http://localhost:30091/data-consumer/v1/info-jobs/2?typeCheck=false' \
  -H 'accept: application/json' \
  -H 'Content-Type: application/json' \
  -d '{
    "info_type_id": "type2",
    "job_result_uri": "https://ricsim_g3_1:8185/datadelivery",
    "job_owner": "ricsim_g3_1",
    "job_definition": {},
    "status_notification_uri": "http://producer:80/"
  }'
```

Response could be both 200 and 201 depending if the command was used to create a new job or to modify an existing one.

Response:

- 200 Job updated
- 201 Job created

### Delete Job

```
curl -X 'DELETE' \
  'http://localhost:30091/data-consumer/v1/info-jobs/1' \
  -H 'accept: application/json'
```

Response:

- 204 Job deleted

- 404 Job not found