

Deploy DMaaP message router in nonrtric

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Please see the relevant page for the latest release: e.g. [Release 1 - Run in Docker](#)

This article helps you to deploy the NON-RT-RIC components using docker compose.

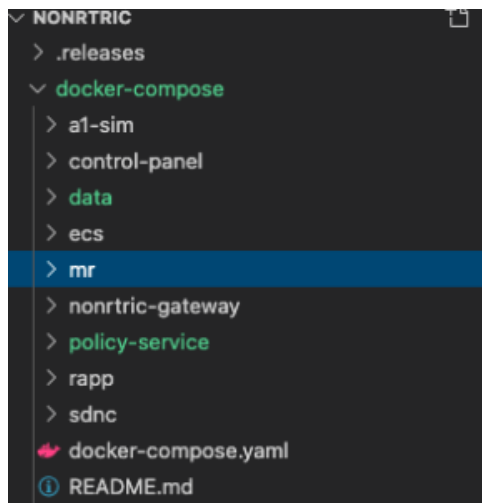
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Prerequisite

- *Docker*
- *Docker Compose*

Installation

Clone [nonrtric](#) and go to nonrtric/docker-compose/



You can see a few folders, each of them contains a docker-compose file for different components. You have the option to install the nonrtric with/without A1 controller/dmapp-mr based on your requirement.

NON-RT-RIC without A1 Controller, with dmaap-mr

withDmaap_nosdnc/docker-compose.yml

This file is to create nonrtric system without sdnc a1-controller, with dmapp-mr

nosdnc with dmaap-mr

```
docker-compose -f docker-compose.yaml -f control-panel/docker-compose.yaml -f policy-service/docker-compose.yaml -f mr/docker-compose.yaml up -d
```

You can see the docker containers with `docker ps`,

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAM
ES						
a884db69f8c7	nexus3.onap.org:10001/onap/dmaap/dmaap-mr:1.1.18	"sh startup.sh"	12 seconds ago	Up 11 seconds	0.0.0.0:3904-3905->3904-3905/tcp	dma
ap-mr						
55671d890037	nexus3.onap.org:10001/onap/dmaap/kafka111:1.0.4	"/etc/confluent/dock..."	14 seconds ago	Up 12 seconds	0.0.0.0:9092->9092/tcp, 9093/tcp	kaf
ka						
b9c0c93d4e19	nexus3.o-ran-sc.org:10004/o-ran-sc/a1-simulator:2.0.0	"/bin/sh -c 'src/std..."	16 seconds ago	Up 14 seconds	0.0.0.0:30003->8085/tcp, 0.0.0.0:30004->8185/tcp	a1-
sim-STD						
584be418c702	nexus3.o-ran-sc.org:10004/o-ran-sc/nonrtic-controlpanel:2.0.0	"java -Xms128m -Xmx2..."	16 seconds ago	Up 13 seconds	0.0.0.0:8080->8080/tcp, 0.0.0.0:8082->8082/tcp	pol
icy-control-panel						
435afdb48ad0	nexus3.o-ran-sc.org:10004/o-ran-sc/nonrtic-policy-agent:2.0.1	"java -jar /opt/app/..."	16 seconds ago	Up 13 seconds	0.0.0.0:8081->8081/tcp, 0.0.0.0:8433->8433/tcp	pol
icy-agent						
1724b4eec638	nexus3.o-ran-sc.org:10004/o-ran-sc/a1-simulator:2.0.0	"/bin/sh -c 'src/std..."	16 seconds ago	Up 13 seconds	0.0.0.0:30001->8085/tcp, 0.0.0.0:30002->8185/tcp	a1-
sim-OSC						
dffe1c3e04ac	nexus3.onap.org:10001/onap/dmaap/zookeeper:6.0.3	"/etc/confluent/dock..."	16 seconds ago	Up 13 seconds	2888/tcp, 0.0.0.0:2181->2181/tcp, 3888/tcp	zoo
keeper						

you should be able to see containers running as above.

Init Script

You can create sample policy types/policy instances of both Standard & OSC Version.

Run the **fill_data.sh** script under directory /data to create some dummy data in the running system.

Command to load the data,

load data
<pre>cd nonrtic/docker-compose/data ./prepareDmaapMsg.sh [dmaap-mr-port] [a1-sim-OSC-port] [a1-sim-STD-port] [http/https]</pre>

This will create,

- one policy type in a1-sim-OSC
- one service in policy agent
- three policies in a1-sim-OSC
- one policy in a1-sim-STD

Open the GUI to view all the policies & policy types created by the above script.

[http://localhost:\[control-panel-port\]/](http://localhost:[control-panel-port]/)

localhost:8080/policy

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Non-RT RIC Control Panel

Policy Control

Policy Type

Description

< No type >

Instance	Target	Owner	Last modified	Action
0f7bb041e1584b1fa17e87520d70a3102	ric2	service1	12/08/2020, 12:52:05	

1

Type 1 policy type

Instance	Target	Owner	Last modified	Action
0f7bb041e1584b1fa17e87520d70a3100	ric1	service1	12/08/2020, 12:52:05	
0f7bb041e1584b1fa17e87520d70a3101	ric1	service1	12/08/2020, 12:52:05	
0f7bb041e1584b1fa17e87520d70a3000	ric1	service1	12/08/2020, 12:52:04	

Manual test

send messages to dmaap-mr

```
cd nonrtric/docker-compose/data
curl -X POST "http://localhost:3904/events/A1-POLICY-AGENT-READ/" -H "accept: application/json" -H "Content-Type: application/json" --data-binary @testdata/dmaap-msg-policy-get.json
```

pull messages from dmaap-mr

```
curl -X GET "http://localhost:3904/events/A1-POLICY-AGENT-WRITE/users/policy-agent?timeout=15000&limit=100" -H "accept: application/json" -H "Content-Type: application/json" | jq .
```

You can see the messages from dmaap-mr topic **A1-POLICY-AGENT-WRITE**, with consumer group "**user**", consumer id "**policy-agent**"

```

chengkaiyan@chengkai-MacBook-Pro:~/oran/docker-compose$ curl -X GET 'http://localhost:3904/events/AI-POLICY-AGENT-WRITE/users/policy-agent?timeout=15000&limit=100' -H "Content-Type: application/json" -J {}
% Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
           % Done    0     0     0    0      0      0      0      0
100 2839  100 2839    0     0  4367    0  --:--:--  --:--:--  --:--:--  4360

[
  {
    "requestId": "23343221",
    "correlationId": "1596363458549998500",
    "originatorId": "849e6cb6b420",
    "type": "response",
    "message": "OK",
    "timestamp": "2020-08-02 10:17:38.550324",
    "status": "200 OK"
  },
  {
    "requestId": "23343221",
    "correlationId": "1596363458549998501",
    "originatorId": "849e6cb6b421",
    "type": "response",
    "message": "OK",
    "timestamp": "2020-08-02 10:17:38.550324",
    "status": "200 OK"
  },
  {
    "requestId": "23343221",
    "correlationId": "1596363459196978900",
    "originatorId": "849e6cb6b420",
    "type": "response",
    "message": "OK",
    "timestamp": "2020-08-02 10:17:39.197067",
    "status": "200 OK"
  },
  {
    "requestId": "23343221",
    "correlationId": "1596304565904621535",
    "originatorId": "849e6cb6b420",
    "type": "response",
    "message": "",
    "timestamp": "2020-08-01 17:56:05.905035",
    "status": "200 OK"
  },
  {
    "requestId": "23343221",
    "correlationId": "159630456656253556",
    "originatorId": "849e6cb6b420",
    "type": "response",
    "message": "",
    "timestamp": "2020-08-01 17:56:06.656949",
    "status": "200 OK"
  },
  {
    "requestId": "23343221",
    "correlationId": "159630456656253557",
    "originatorId": "849e6cb6b420",
    "type": "response",
    "message": "",
    "timestamp": "2020-08-01 17:56:06.656949",
    "status": "200 OK"
  },
  {
    "requestId": "23343221",
    "correlationId": "159630456656253558",
    "originatorId": "849e6cb6b420",
    "type": "response",
    "message": "",
    "timestamp": "2020-08-01 17:56:06.656949",
    "status": "200 OK"
  },
  {
    "requestId": "23343221",
    "correlationId": "1596304567017739720",
    "originatorId": "849e6cb6b420",
    "type": "response",
    "message": "{\"scope\":{\"qosId\":\"qos3000\"},\"id\":\"ue3000\"},\", \"priorityLevel\": \"3000\"},\", \"timestamp\": \"2020-08-01 17:56:07.017744\", \"status\": \"200 OK\"}",
    "timestamp": "2020-08-01 17:56:07.017744",
    "status": "200 OK"
  },
  {
    "requestId": "23343221",
    "correlationId": "1596304567017739720",
    "originatorId": "849e6cb6b420",
    "type": "response",
    "message": "{\"scope\":{\"qosId\":\"qos3100\"},\"id\":\"ue3100\"},\", \"priorityLevel\": \"3100\"},\", \"timestamp\": \"2020-08-01 17:56:07.017744\", \"status\": \"200 OK\"}",
    "timestamp": "2020-08-01 17:56:07.017744",
    "status": "200 OK"
  },
  {
    "requestId": "23343221",
    "correlationId": "1596304567017739720",
    "originatorId": "849e6cb6b420",
    "type": "response",
    "message": "{\"scope\":{\"qosId\":\"qos3100\"},\"id\":\"ue3100\"},\", \"priorityLevel\": \"3200\"},\", \"timestamp\": \"2020-08-01 17:56:07.017744\", \"status\": \"200 OK\"}",
    "timestamp": "2020-08-01 17:56:07.017744",
    "status": "200 OK"
  },
  {
    "requestId": "23343221",
    "correlationId": "1596304567017739720",
    "originatorId": "849e6cb6b420",
    "type": "response",
    "message": "{\"scope\":{\"qosId\":\"qos3102\"},\"id\":\"ue3102\"},\", \"priorityLevel\": \"3201\"},\", \"timestamp\": \"2020-08-01 17:56:07.017744\", \"status\": \"200 OK\"}",
    "timestamp": "2020-08-01 17:56:07.017744",
    "status": "200 OK"
  }
]

```

Message format

create a policy via dmaap-mr

```
{
  "apiVersion": "1.0",
  "operation": "PUT",
  "correlationId": "1596304565904621535",
  "originatorId": "849e6c6b420",
  "payload": {
    "scope": {
      "ueId": "ue3000",
      "qosId": "qos3000"
    },
    "qosObjective": {
      "priorityLevel": 3000
    }
  },
  "requestId": "23343221",
  "target": "policy-agent",
  "timestamp": "2020-08-01 17:56:05.905035",
  "type": "request",
  "url": "/policy?id=0f7bb041e1584b1fa17e87520d70a3000&ric=ric1&service=service1&type=1"
}
```