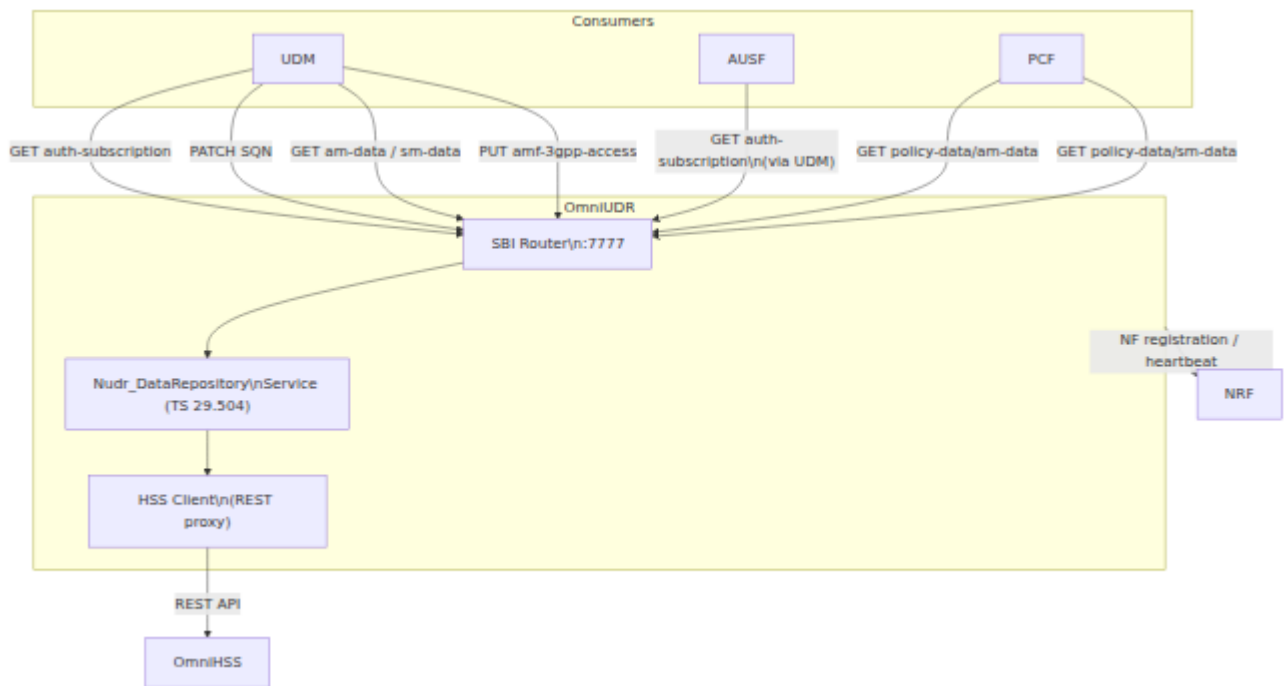


OmniUDR

1. Overview

OmniUDR is Omnitouch 5G Network Data Repository (UDR) based on Nudr_DataRepository (TS 29.504) and SBI and UDM/AUSF/PCF based on OmniUDR and HSS REST API and OmniHSS based on 3GPP

OmniUDR is OmniUDM based on (NF) and SBI and NRF



2. 3GPP

구분	구분
UDR	TS 23.501 ~ 6.2.9
Nudr_DataRepository	TS 29.504
	TS 29.505
	TS 29.519
	TS 29.504 ~ 5.2.2
(AM, SM)	TS 29.504 ~ 5.2.3
(AMF/SMF)	TS 29.504 ~ 5.2.4
(AM/SM)	TS 29.504 ~ 5.2.5

3. SBI

HTTP/1.1Content-Type: application/json

3GPP (TS 29.504)

Method	URI	Response	Status
GET	/nudr-dr/v2/subscription-data/{ueId}/authentication-data/authentication-subscription	Authentication Data (Ki, OPc, SQN)	200 OK
PATCH	/nudr-dr/v2/subscription-data/{ueId}/authentication-data/authentication-subscription	Authentication Data (SQN)	204 No Content
GET	/nudr-dr/v2/subscription-data/{ueId}/{servingPlmnId}/provisioned-data/am-data	AM Data	200 OK
GET	/nudr-dr/v2/subscription-data/{ueId}/{servingPlmnId}/provisioned-data/sm-data	SM Data	200 OK
GET	/nudr-dr/v2/subscription-data/{ueId}/{servingPlmnId}/provisioned-data/smf-select-data	SMF Select Data	200 OK

API (TS 29.504)

Method	URI	Response	Status
PUT	/nudr-dr/v2/subscription-data/{ueId}/context-data/amf-3gpp-access	AMF response	204 No Content
PUT	/nudr-dr/v2/subscription-data/{ueId}/context-data/smf-registrations/{pduSessionId}	SMF response	204 No Content

API (TS 29.519)

Method	URI	Response	Status
GET	/nudr-dr/v2/policy-data/ues/{ueId}/am-data	AM response	200 OK
GET	/nudr-dr/v2/policy-data/ues/{ueId}/sm-data	SM response	200 OK

4. Summary

OmniUDR is an Elixir application that provides a REST API for NUDR-DR and NUDR-PCF. The API is defined in the `omniudr` module.

□□□□

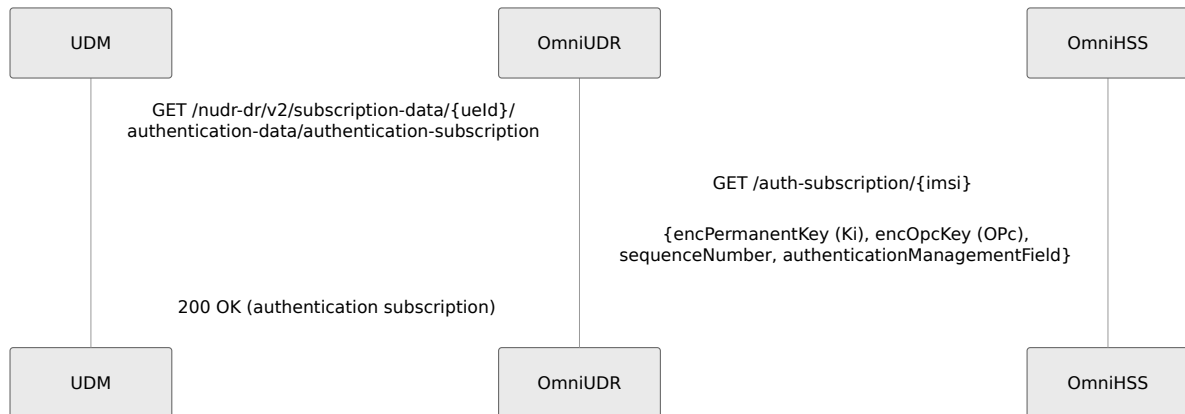
```
config :omniudr,  
  sbi_scheme: "http",  
  sbi_addr: "127.0.0.22",  
  sbi_port: 7777,  
  nrf_uri: "http://127.0.0.10:7777",  
  mcc: "999",  
  mnc: "70",  
  heartbeat_interval: 10_000,  
  hss_api_base_url: "https://127.0.0.1:8443"
```

□□□

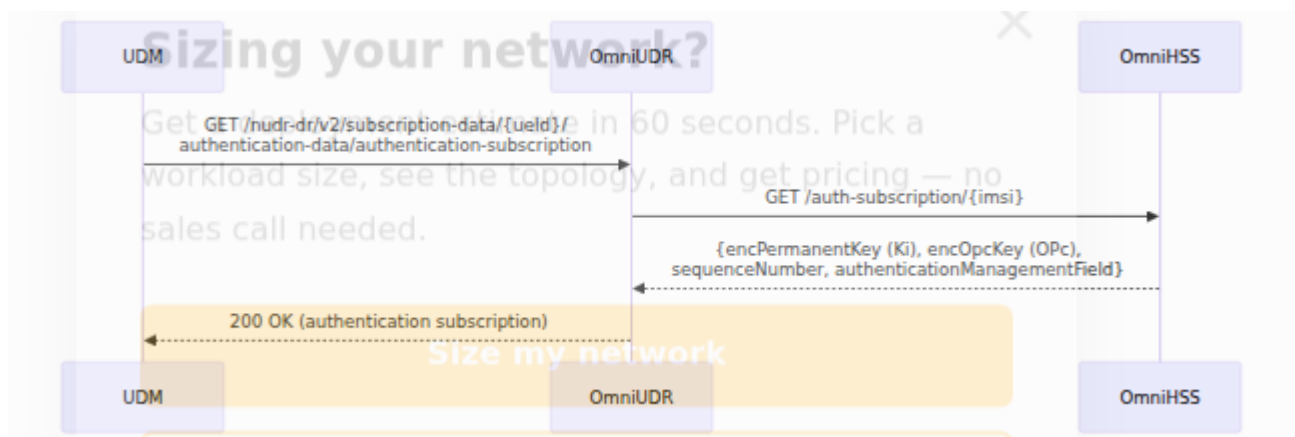
□□	□□	□□□	□□
sbi_scheme	□□ □	"http"	SBI HTTP □□□□ URI □□
sbi_addr	□□ □	"127.0.0.22"	SBI HTTP □□□□□ □ IP □□
sbi_port	□□	7777	SBI HTTP □□□□□ □ TCP □□
nrf_uri	□□ □	"http://127.0.0.10:7777"	□□ NF □□□□□□ NRF □□ URI
mcc	□□ □	"999"	□□ PLMN □□□□□ □□
mnc	□□ □	"70"	□□ PLMN □□□□□ □□
heartbeat_interval	□□ (□ □)	10000	OmniUDR □□ NRF □□ PATCH □□□□□
hss_api_base_url	□□ □	"https://127.0.0.1:8443"	OmniHSS REST API □□□ URL□□□□ □□□□□□□□□□□□

5. 〇〇〇〇

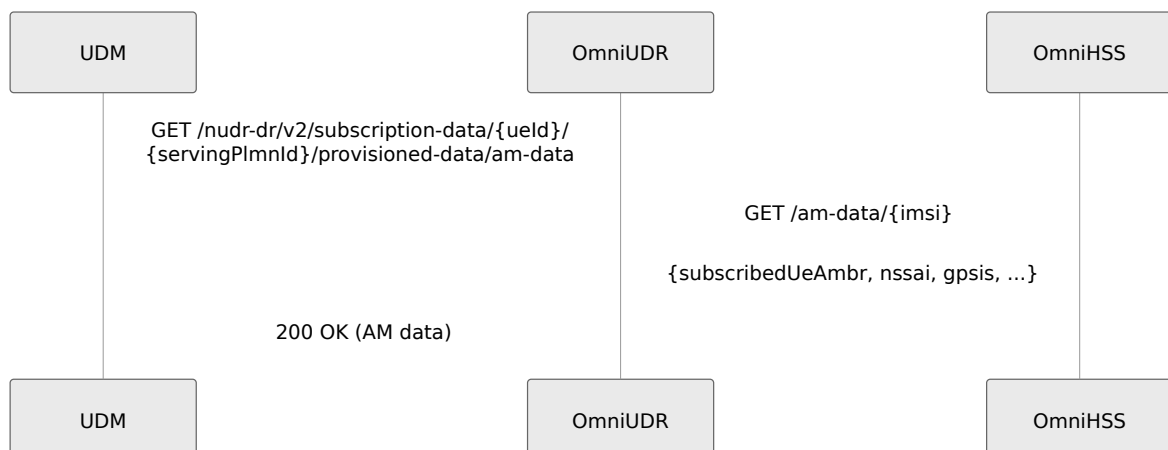
5.1 〇〇〇〇〇〇



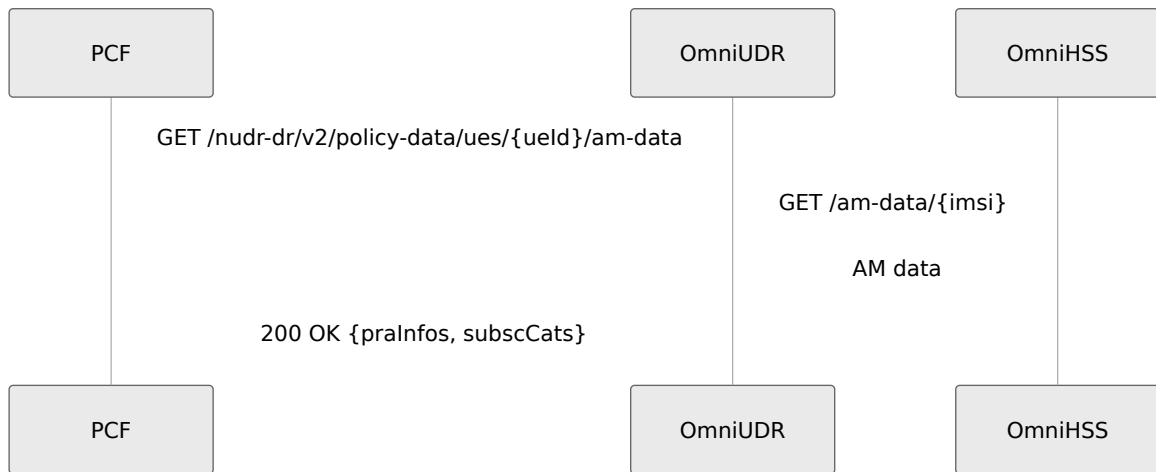
5.2 SQN 〇〇



5.3 〇〇〇〇〇〇〇〇



5.4 序列图



6. Prometheus

UDR

메트릭	타입	레이블	설명
omni_udr.nrf.registration.status	gauge	nf_type	NRF 등록 상태 (1=등록, 0=미등록)
omni_udr.hss.health	gauge	--	HSS 상태 (1=정상, 0=비정상)
omni_udr.hss_requests.total	counter	endpoint, result	HSS 요청 횟수
omni_udr.hss_request.duration_ms	distribution	endpoint	HSS 요청 지연 시간 분포 (5, 10, 25, 50, 100, 250, 500, 1000, 2500ms)

BEAM VM

<code>beam.memory.total</code>	gauge	BEAM
<code>beam.memory.processes</code>	gauge	Erlang
<code>beam.memory.system</code>	gauge	(ETS, atoms, code)
<code>beam.processes.count</code>	gauge	Erlang
<code>beam.vm.uptime</code>	gauge	VM

7.

ID		
UDR-1		OmniHSS UDR AM SM HSS
UDR-2		(/policy-data/ues/{ueId}/am-data .../sm-data) HSS AM/SM TS 29.519
UDR-3		(Nudr_DataRepository_Subscribe)
UDR-4	SMF	put_smf_registration OmniHSS
UDR-5		OmniUDR OmniHSS

8.

GET 404

OmniUDR OmniHSS

1. `hss_api_base_url` [] OmniUDR [] [] [] []
2. [] [] IMSI [] OmniHSS [] [] []
3. [] [] [] [] `ueId` [] `imsi-{digits}` [] []

PATCH SQN 500

```
HSS 0000 SQN 000000 OmniHSS 0000UDR 00 Failed to update SQN for {ueId}:
{reason}0000 :ok 000000000000
```

/policy-data/ HSS AM/SM

HSS ☐ ☐ ☐ ☐

```
omni udr.hss.health gauge (1=, 0=) 
```

omni_udr.hss_request.duration_ms HSS