# SIP Capturing in OpenSIPS 2.2 from A to 2 - workshop -

## **Ionut Ionita**

# **OpenSIPS** Developer

You can find me at ionutionita@opensips.org Github @ionutrazvanionita

#### Motivation

- HOMER5 compatibility
- use new async features for sending/receiving HEP packets
- support for HEPv3(UDP/TCP)
- extend capturing agent functionality

## PROTO\_HEP

- network layer module
- used by siptrace and sipcapture
- support for HEPv1, HEPv2 and HEPv3
- supports TCP and UDP listeners listen=hep\_tcp:127.0.0.1:506

0

listen=hen\_udp:127.0.0.1:506

## SIPTRACE

- on demand everything is now being made through sip\_trace along with trace\_id
- trace\_id allows defining databases, HEP and SIP destinations
- proto\_hep for HEP forwarding
- multiple levels of tracing are now available
  - > message level tracing
  - transaction level tracing
  - b dialog level tracing

#### trace\_id

- multiple trace ids can be nested under the same name
  - MI function sip\_trace for controlling trace\_ids state

## SIPCAPTURE

- ► fully HOMER5 compliant
- hep\_route special route for HEP packets
- HEP proxy relay HEP packets based on routing rules
- capture packets different than SIP report\_capture()
- sip\_capture() async

## **HEP features in SIPCAPTURE**

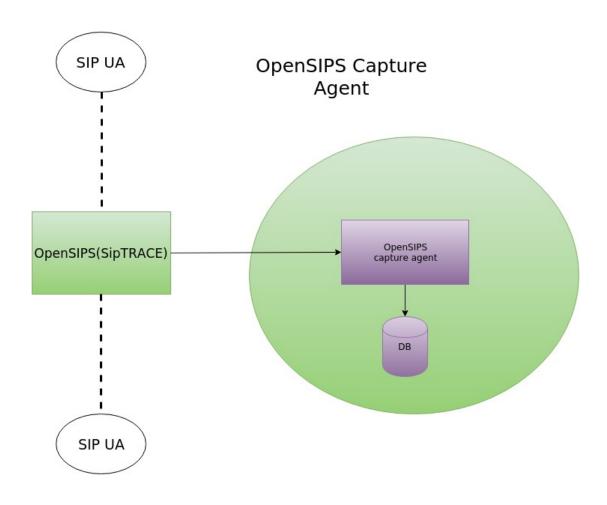
- HEPv3 packet manipulation

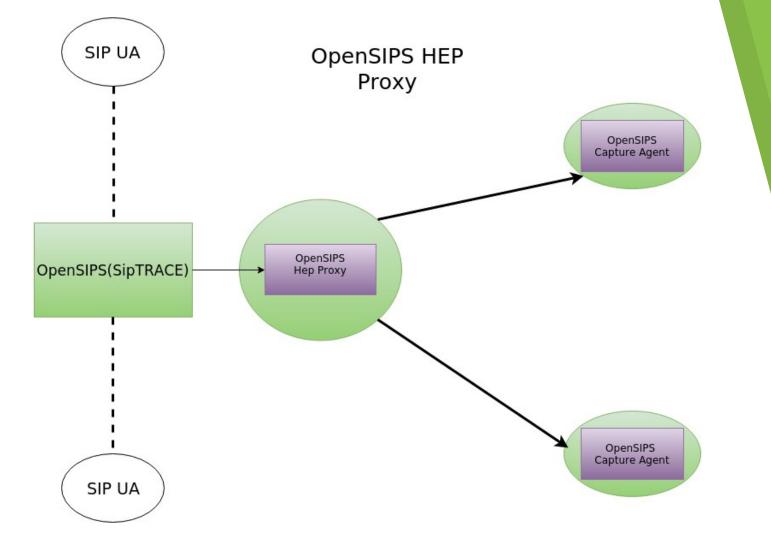
   add/modify chunks hep\_set()
   remove chunks hep\_del()
   read chunks hep\_get()

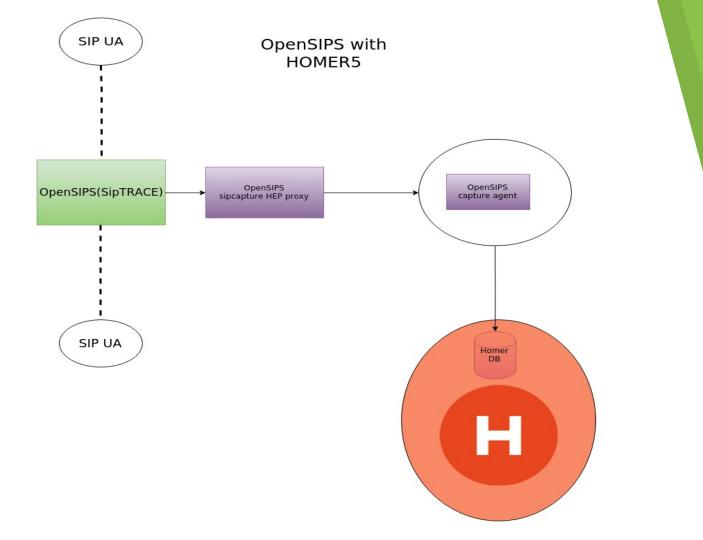
   hep\_relay() relay packets based on
  - OpenSIPS routing logic
- HEPVERSION script variable

# HEP features in SIPCAPTURE(2)

- ► hep\_route
  - define a special route for HEP packets
  - packet payload is not parsed
  - > report\_capture() to save packets that are not HEP
  - > parse message and go to SIP
    route with hep\_resume\_sip()
- hep\_net layer 3 and 4 information about receiving HEP interface







# **THANKS!**

# Any questions?

You can find me on GitHub at @ionutrazvanionita & ionutionita@opensips.org