



the voice services platform



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- SEMS' position in F/OSS VoIP landscape
- SEMS 0.10.0 rc2 highlights
- SER - SEMS relation and versions
- Set up a conference bridge in 2 min

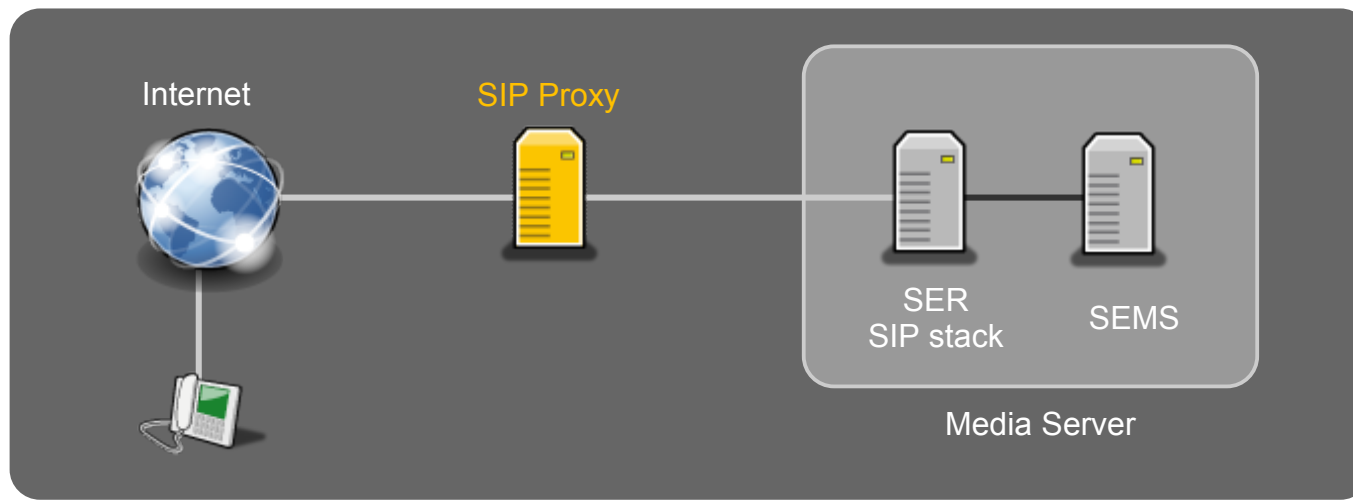
- Serve basic services with high performance
 - > basic: announcements, pre-call announcements, voicemail, conference
 - > performance: e.g. 300 G711 conference channels / CPU@2GHz
- Flexible framework for service development
 - > use provided applications as basis

- High performance, how?
 - > Only SIP, SDP, RTP. (no H323, IAX,...)
 - > Use SER as SIP stack
 - > C / C++

- Flexible framework, how?
 - > Modular
 - > Well-working default behaviour
 - > Implement behaviour at any abstraction level
 - > Python embedded

- SEMS not too good for...
 - > Feature-rich PBX, unless You implement it
 - > One-click installation

- Better jitter compensation
- Performance (cache), Monitoring (stats)
- Python embedded with generated wrappers
- Components: UAC auth, Registrar client
- Apps: pin collect w/ transfer, refer
- Documentation is growing



Advantages of SER as SIP stack

- > Fast SIP parsing and transaction handling
- > SIP interop proven

<i>SEMS</i>	<i>SER</i>
0.8.12	0.8.12
0.9.0 0.10.0 rc1 0.10.0 rc2	0.9.6
0.10.0 rc3 (in development)	0.9.6 2.0

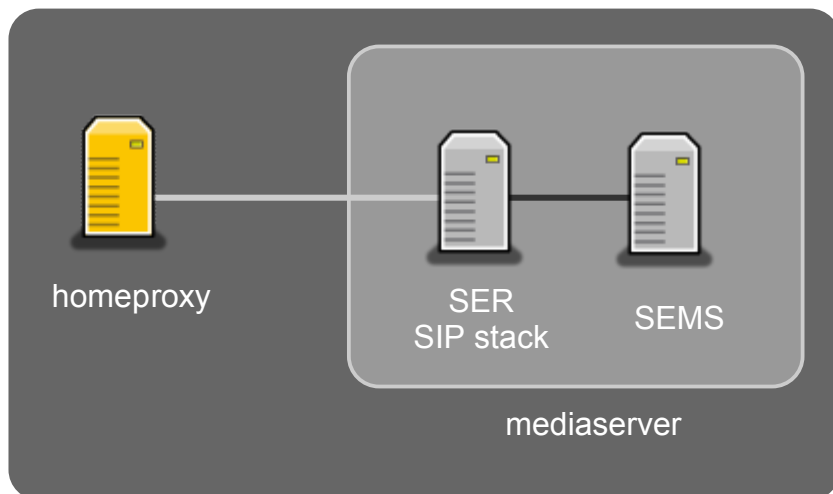
- Install SER for SEMS

```
$ wget ftp.iptel.org/pub/sems/ser-0.9.6-sems_src.tar.gz  
$ tar xzvf ser-0.9.6-sems_src.tar.gz; cd ser-0.9.6-sems  
$ make install PREFIX=/opt/ser-sems
```

- Install SEMS

```
$ wget ftp.iptel.org/pub/sems/sems-0.10.0-rc2.tar.gz  
$ tar xzvf sems.0.10.0-rc2.tar.gz; cd sems-0.10.0-rc2  
$ make install
```

conference bridge in 2min



```
#
U homeproxy:5060 -> mediaserver:5070
INVITE sip:conference@mydomain.net SIP /2.0.
From: stefan@mydomain.net; tag=1234.
To: conference@mydomain.net.
...
P-App-Name: conference.
.
...
```

```
port=5070
unix_sock="/tmp/ser_sock"
server_signature=0

loadmodule "/opt/ser-sems/lib/ser/modules/sl.so"
loadmodule "/opt/ser-sems/lib/ser/modules/tm.so"

modparam("tm", "pass_provisional_replies", 1)
modparam("tm", "tw_append",
    "app_headers:hdr[P-App-Name];hdr[P-App-Param]")
```

conference bridge in 2min

```
route{
  if (!t_newtran()){
    sl_send_reply("500","could not create transaction");
    break;
  }
  if (method == "ACK") {
    t_relay();
    break;
  }
  if (method=="INVITE") {
    if(!t_write_unix("/tmp/sems_sock","sems/app_headers"){
      log("could not contact sems\n");
      t_reply("500","could not contact media server");
    }
  } else {
    if(!t_write_unix("/tmp/sems_sock","sems"){
      log("could not contact sems\n");
      t_reply("500","could not contact media server");
    }
  }
}
```

```
root@mediaserver sems-0.10.0-rc2 $ make install-ser-cfg
```



Thank You.



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