



# SIP Express Media Server - the voice services platform



Stefan Sayer

stefan.sayer@iptego.de

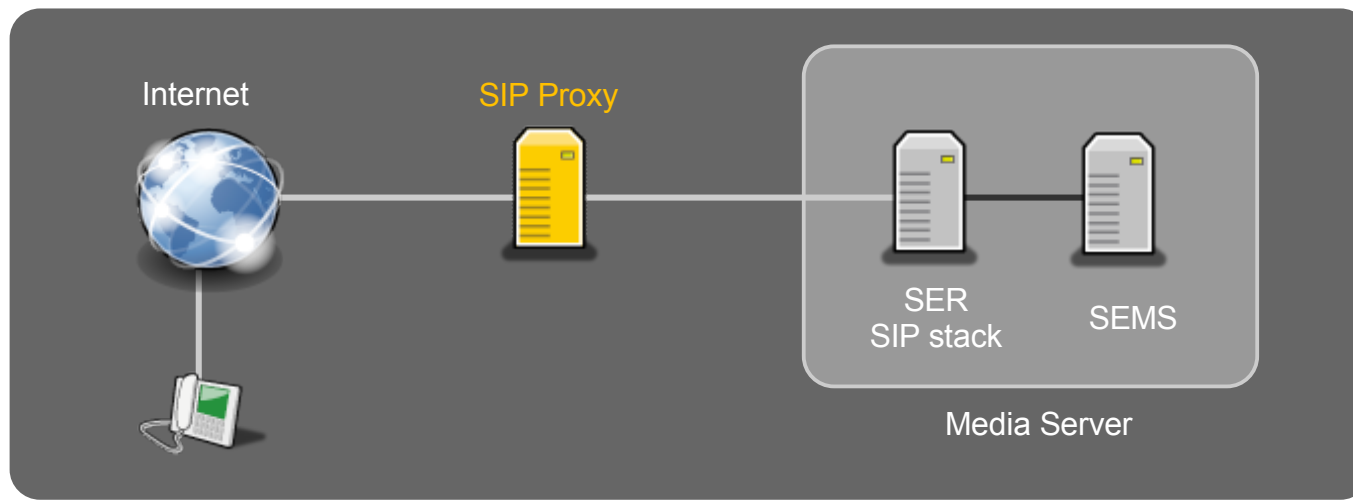
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- SEMS' place in F/OSS VoIP landscape
- Performance, how?
- Flexible framework, how?
- Idea: Conference control made simple

- Serve basic services with high performance
  - > basic: announcements, pre-call announcements, voicemail, conference
  - > performance:
    - e.g. 300 G711 conference channels / CPU@2GHz
    - announcements at 'wireline speed' for G711 and 100MB ethernet
- Flexible framework for custom service development
- Not good for: Feature-rich PBX

- Only SIP, SDP, RTP (no H323, IAX,...)
- Use SIP Express Router (SER) as SIP stack
- C / C++
- Keep things simple

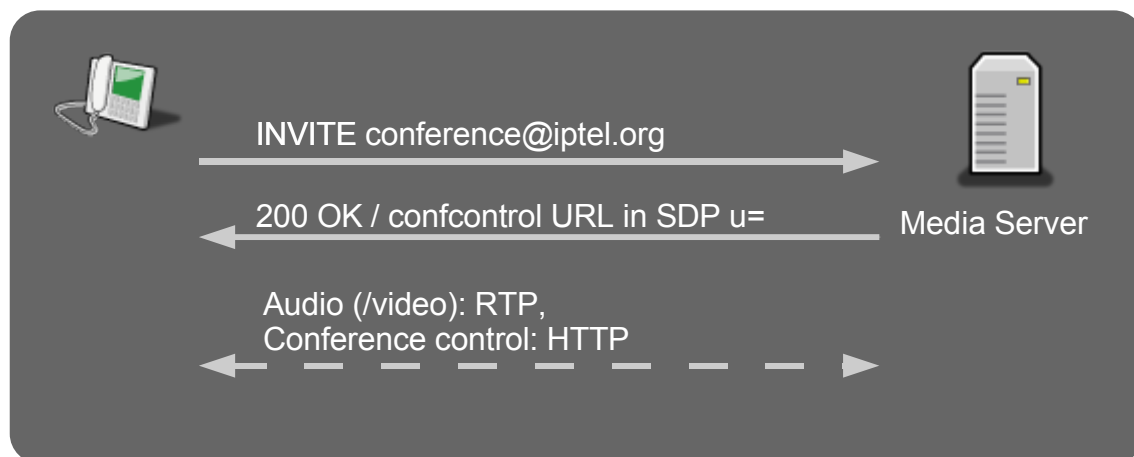


## Advantages of Sip Express Router (SER) as SIP stack

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

- > Modular: application, audio and component plugins
- > Well-working default behaviour
- > Implement behaviour at any abstraction level
- > Python embedded

- Problem: Conference control via DTMF sucks
- Solution:
  - > Use HTML/AJAX/... for Web-UI
  - > UA (softphone, smartphone) only needs to display web page
  - > Much simpler than XCON



## 1. Bridge returns conference control URL in session u= line of SDP:

```
v=0  
o=blibla 284526 289807 IN IP4 213.192.59.75  
s=conference  
u=http://iptel.org/confcontrol/?s=1f2ea493bcd  
c=IN IP4 213.192.59.75  
t=397496 287340  
m=audio 3456 RTP/AVP 0 8
```

## 2. UA shows control page in browser window

- > Floor control > IM
- > Dialout > talk to in private ...

Want to join the project?

=> Lets talk here  
or

<mailto:stefan.sayer@iptego.de>



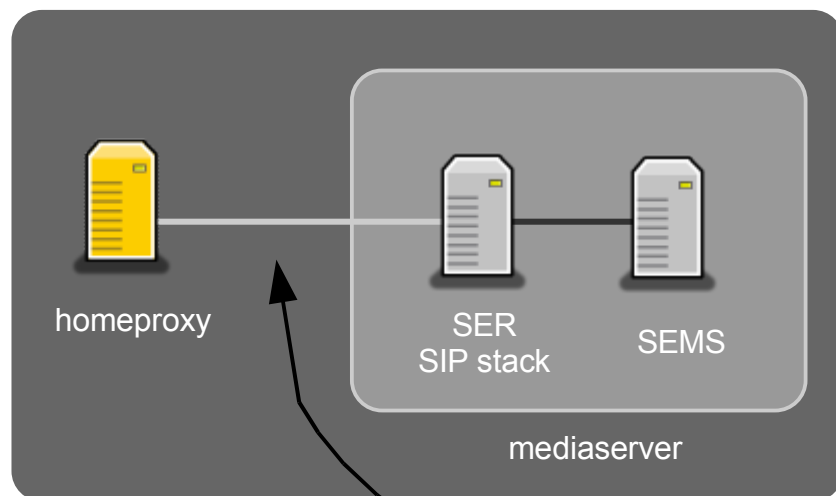
- Install SER for SEMS

```
$ 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.
P-App-Param: Dialout-From="@iptel.org"
.
...
```

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



Thank You.



Stefan Sayer

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