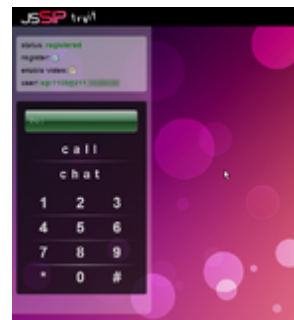


WebRTC ? Asterisk 11 ??????????

Updated by 2015/11/15: ?? Chrome ? Firefox???? sipML5 ? JsSIP ?????????????? LAN ??????????

????????

- <https://plus.google.com/u/0/b/111689...ts/TWZR5XzG1jU>
- <http://blog.osslab.com.tw/?p=818>



?? SIP Server ?? Asterisk 11 ?????????????? webrtc2sip ??????????????????

- <http://www.webrtc2sip.org/>
- <http://click2dial.org/u/index.html#>

????

- [Configuración de WebRTC en Elastix 4 – WebPhone](#)

????

??????

1. Asterisk ?????????? res_http_websocket, res_srtp(SRTP ??)
2. WebRTC ??????????????
 - ? [sipML5](#)
 - ? [JsSIP](#)

NOTE:

?????? res_srtp????????? libsrtp????????? Asterisk?

?? res_http_websocket

?? /etc/asterisk/http.conf

[general]

enabled=yes

bindaddr=0.0.0.0

bindport=8088

NOTE:

bindport ?????

???? sip.conf
 ?? [general]

udpbindaddr=0.0.0.0:5060

NOTE:

????????????????

? WebRTC ??????????

transport=udp,ws,wss
 encryption=yes
 avpf=yes
 icesupport=yes

?????(1) - sipML5

?? Chrome ??????<http://sipml5.org/call.htm?svn=9>

?? Expert mode

- Disable Video: <??>
- Enable RTCWeb Breaker: <??>
- WebSocket Server URL: ws://xxx.xxx.xxx:8088/ws
- SIP Outbound Proxy URL: udp://xxx.xxx.xxx:5060

?? Save??????

- Display Name: <??>
- Private Identify: <??>
- Public Identify: sip:<??>@xxx.xxx.xxx
- Password: <??>
- Realm: xxx.xxx.xxx

?????(2) - JsSIP

?? Chrome ??????<http://jssip.net/>

- Name: <??>
- SIP URI: sip:<??>@xxx.xxx.xxx
- SIP Password: <??>
- WS URI: ws://xxx.xxx.xxx:8088/ws

FAQ

Q: ??????????????

Rejecting secure audio stream without encryption details: audio 9 UDP/TLS/RTP/SAVPF 109 9 0 8
101

A: Chrome 36 ?????? DTLS-SRTP?????? Asterisk ????

????

```
#> mkdir /etc/asterisk/keys
```

```
#> cd /usr/src/asterisk/contrib/scripts
```

```
#> ./ast_tls_cert -C homepbx.osslab.tw -O "My Home PBX" -d /etc/asterisk/keys
```

...

```
Enter pass phrase for /etc/asterisk/keys/ca.key: <??Key??>
```

```
Verifying - Enter pass phrase for /etc/asterisk/keys/ca.key: <?????>
```

```
Creating CA certificate /etc/asterisk/keys/ca.crt
```

```
Enter pass phrase for /etc/asterisk/keys/ca.key: <??key??>
```

```
Getting CA Private Key
```

```
Enter pass phrase for /etc/asterisk/keys/ca.key: <??key??>
```

????????????

asterisk.crt

asterisk.csr

asterisk.key

asterisk.pem

ca.cfg

ca.crt

ca.key

????

```
#> chmod a+r /etc/asterisk/keys/*
```

?? WebRTC ??

?? FreePBX ??????

- ??: 240
- avpf: Yes
- icesupport: Yes
- transport: All-WS
- encryprion: Yes

?? /etc/asterisk/sip_custom_post.conf

```
[240](+  
dtlsenable=yes  
dtlsverify=no  
dtlscertfile=/etc/asterisk/keys/asterisk.pem  
dtlsprivatekey=/etc/asterisk/keys/asterisk.pem  
dtlssetup=actpass
```

?????

```
asterisk -rx "sip reload"
```

???

- <https://wiki.asterisk.org/wiki/displ...WebRTC+Support>
- <https://wiki.asterisk.org/wiki/displ...l+using+SIPML5>
- <http://nerdvittles.com/?p=5321>
- <http://code.google.com/p/sipml5/wiki/Asterisk>