



# Extendiendo SIP con WebRTC

Saúl Ibarra Corretgé | @saghul

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@saghul

# AG Projects

WebRTC

HI PUTA IDEA DE SII  
Y VIVEBRTC

PER

UI WEI

World w



Es un  
**ESTÁNDAR**

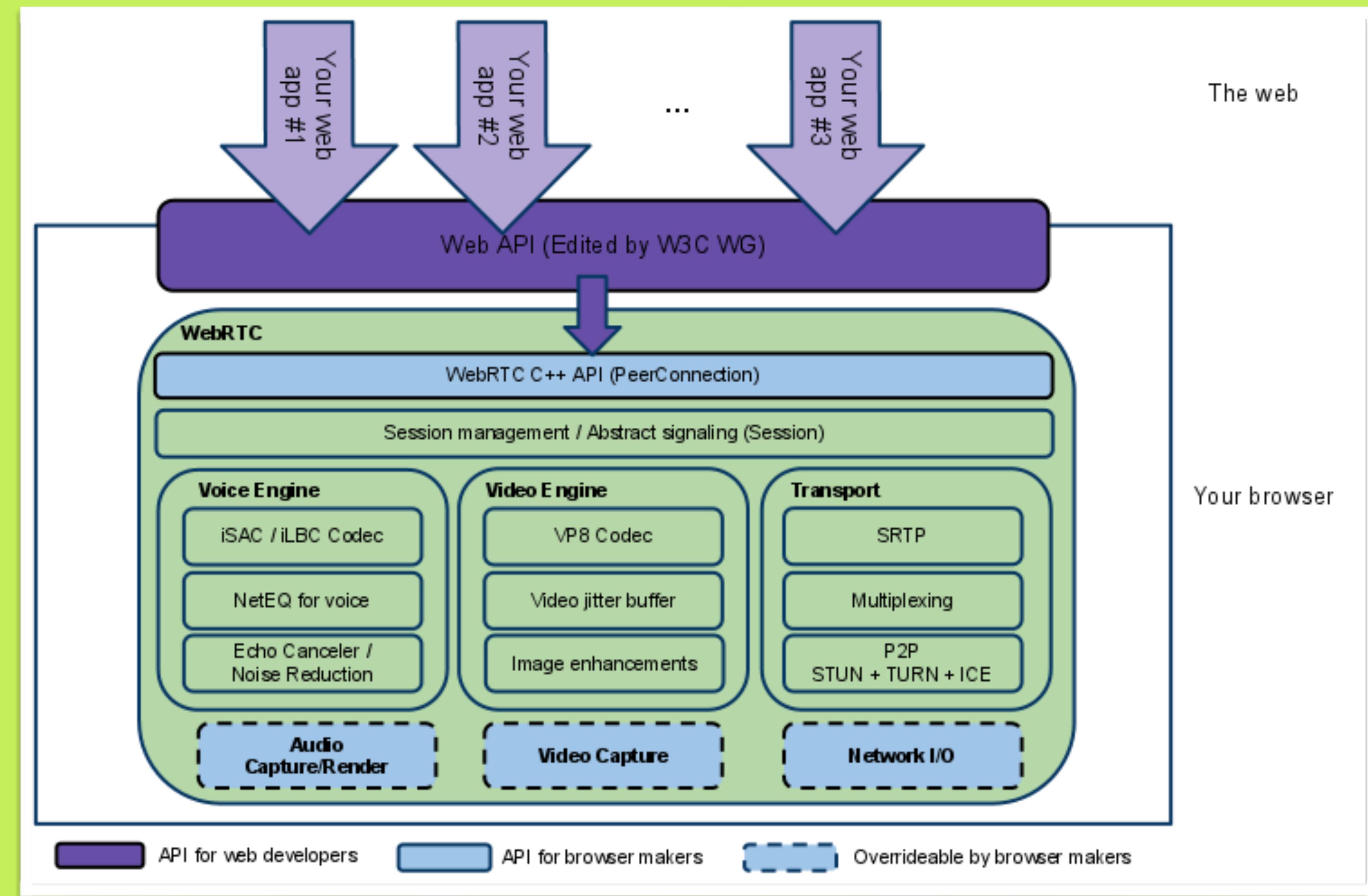
{ }

# getUserMedia

# RTCPeerConnection

# RTCDataChannel

Es un  
**PROYECTO**



Es un  
**PERFIL DE MEDIA**

Nuevo perfil de media

ICE

DTLS

BUNDLE

RTCP-MUX

Es un  
**SDP HORRIBLE**

webrtch4cks:~\$

[webrtchacks.com/sdp-anatomy/](http://webrtchacks.com/sdp-anatomy/)



# Primer!



Opus

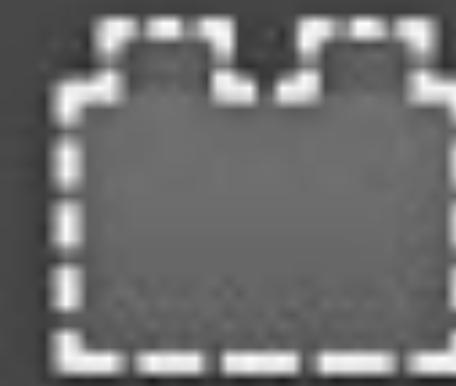


VP8

H.264



A plugin is needed to display this content.



A plugin is needed to display this content.

ORTC

H.264 UC

Opus





The image is a collage of five screenshots from different websites, all centered around the theme of WebRTC:

- ABIresearch**: A screenshot of the ABIresearch website showing a news article titled "4.7 Billion Mobile WebRTC Devices by 2018 Despite Low Adoption Rates".
- WebRTC World**: A screenshot of the WebRTC World website featuring a "Happy New Year! Over 6.2B..." banner and a "WebRTC Expert Feature" about the "Happy New Year Forecast by 2015".
- Sonus Special Edition**: A screenshot of a Sonus-branded special edition document titled "WebRTC FOR DUMMIES". It features a cartoon character pointing upwards and a list of "Learn to:" items.
- WebRTC Ecosystem**: A screenshot of a page titled "WebRTC Ecosystem" with a "CLICK HERE TO VIEW DETAILS" button.
- Apple Google**: A screenshot of a search results page on Google for "hype billi...".

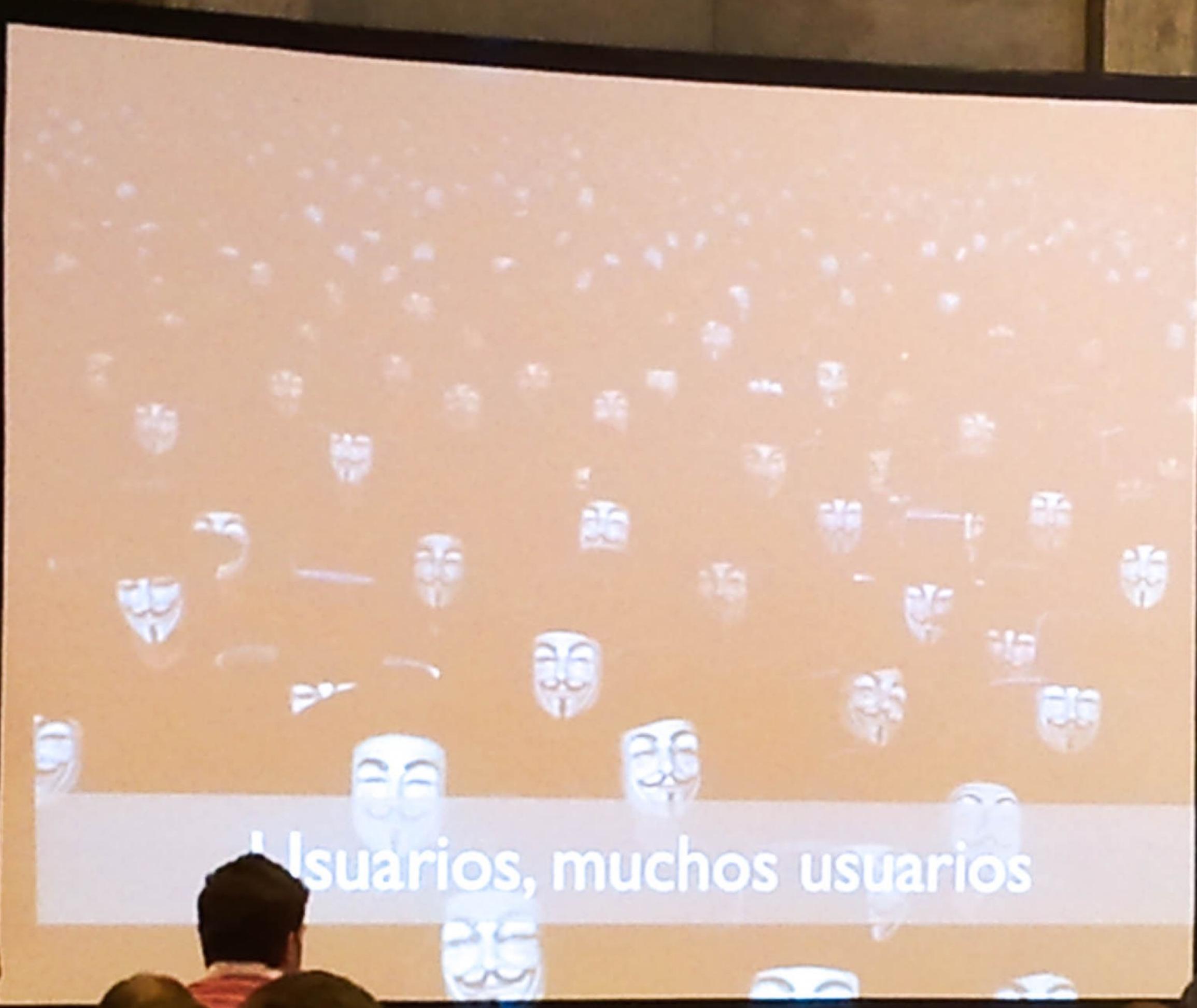


**IRONTEC**

irontec  
Internet y Sistemas sobre GNU/Linux









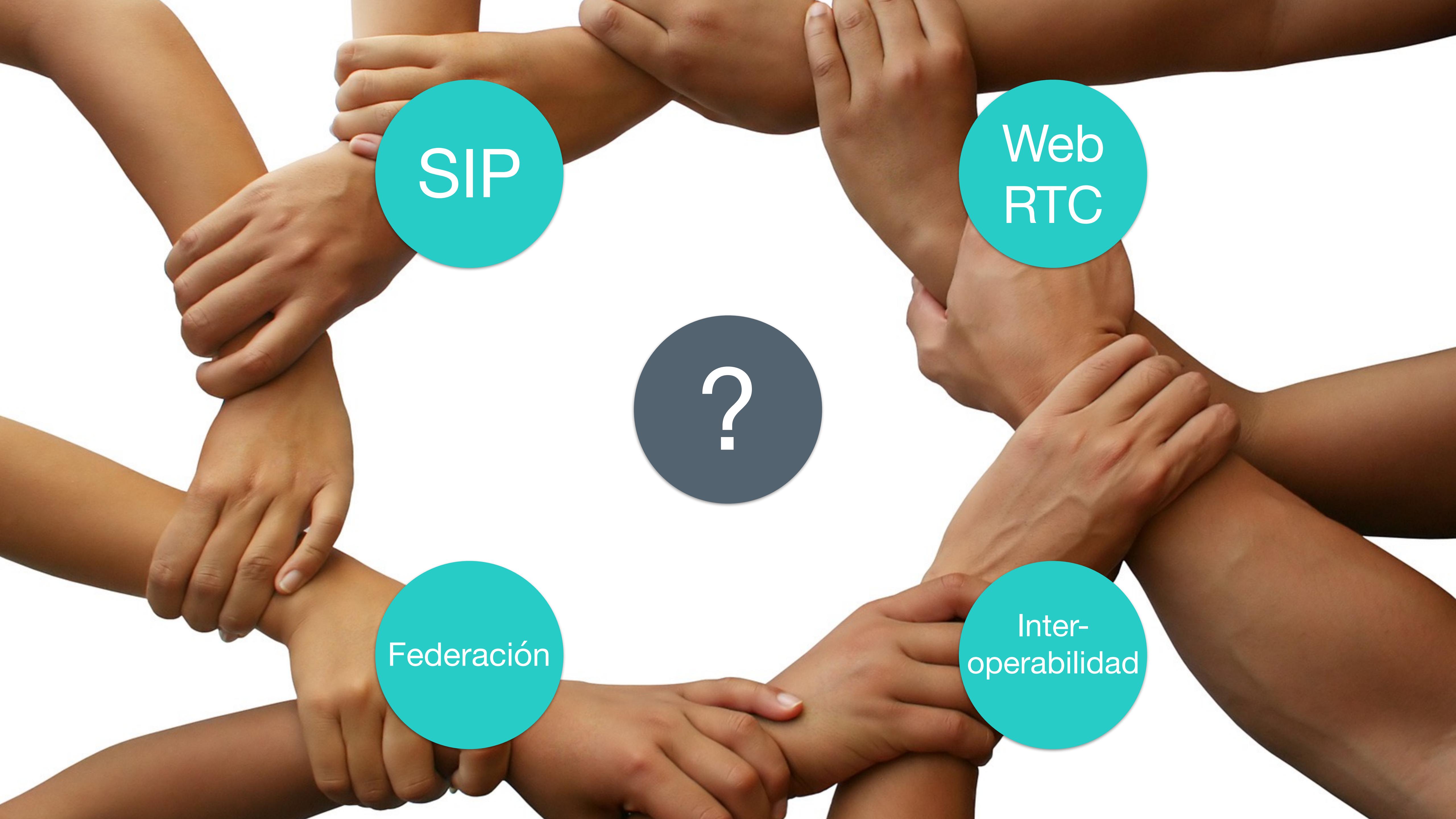
Elie Rojano  
<http://www.sinologic.net>

# Llámame a mi correo electrónico

DNS SIP Register Kamailio Asterisk Teatro HTML5  
IAC SRV SIP Freeswitch VoIP2DAY PBX Gateway  
Sinologic Proxy PSTN SIP OpenSIPS Seguridad WebRTC B2BUA







*Things they are  
a-changin'*



	VoIP Tradicional	Web + WebRTC
Routing	usuario@dominio	URL HTTP(S)
Características	Teléfono	Navegador
Complejidad		???

A

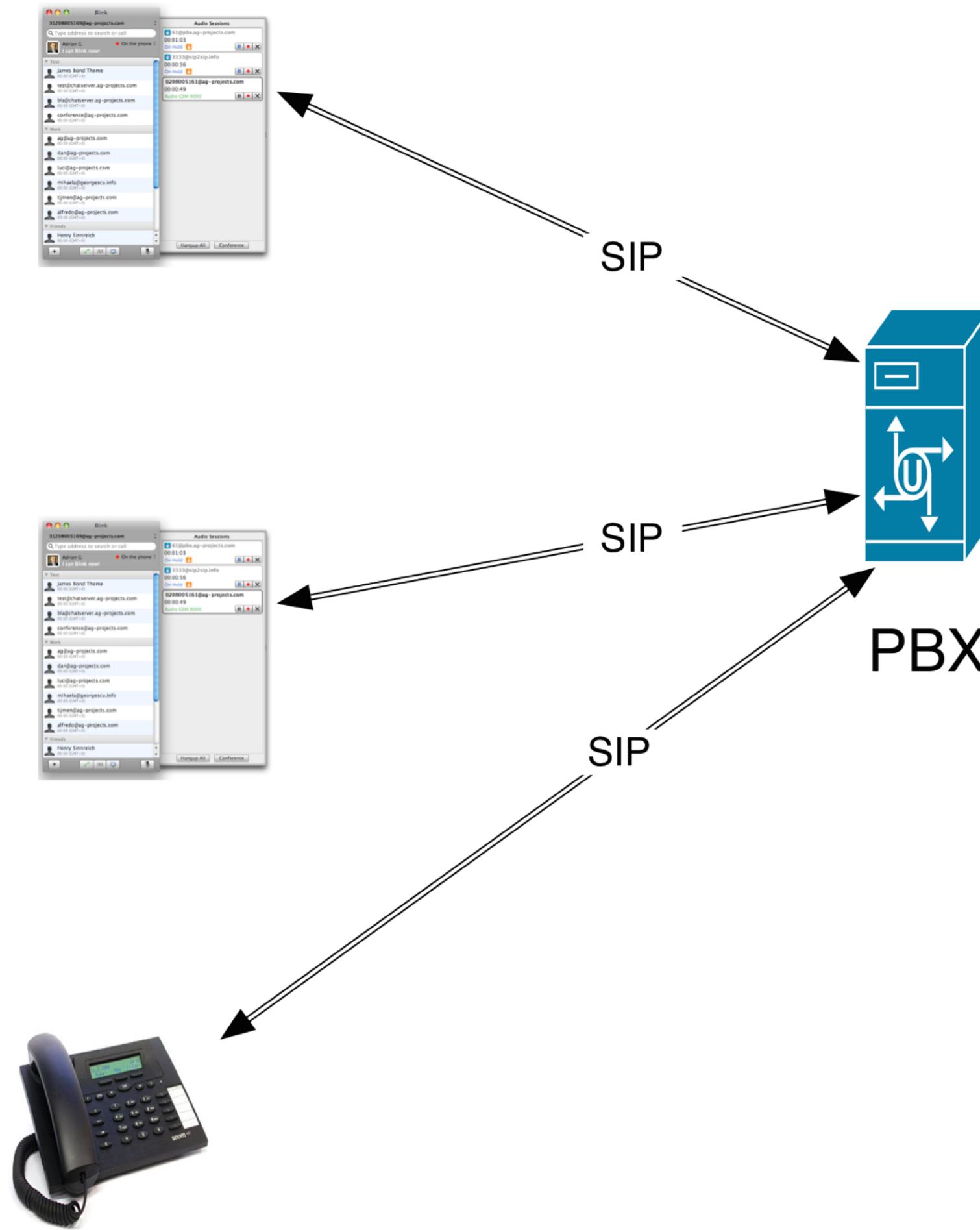
?  
==

B

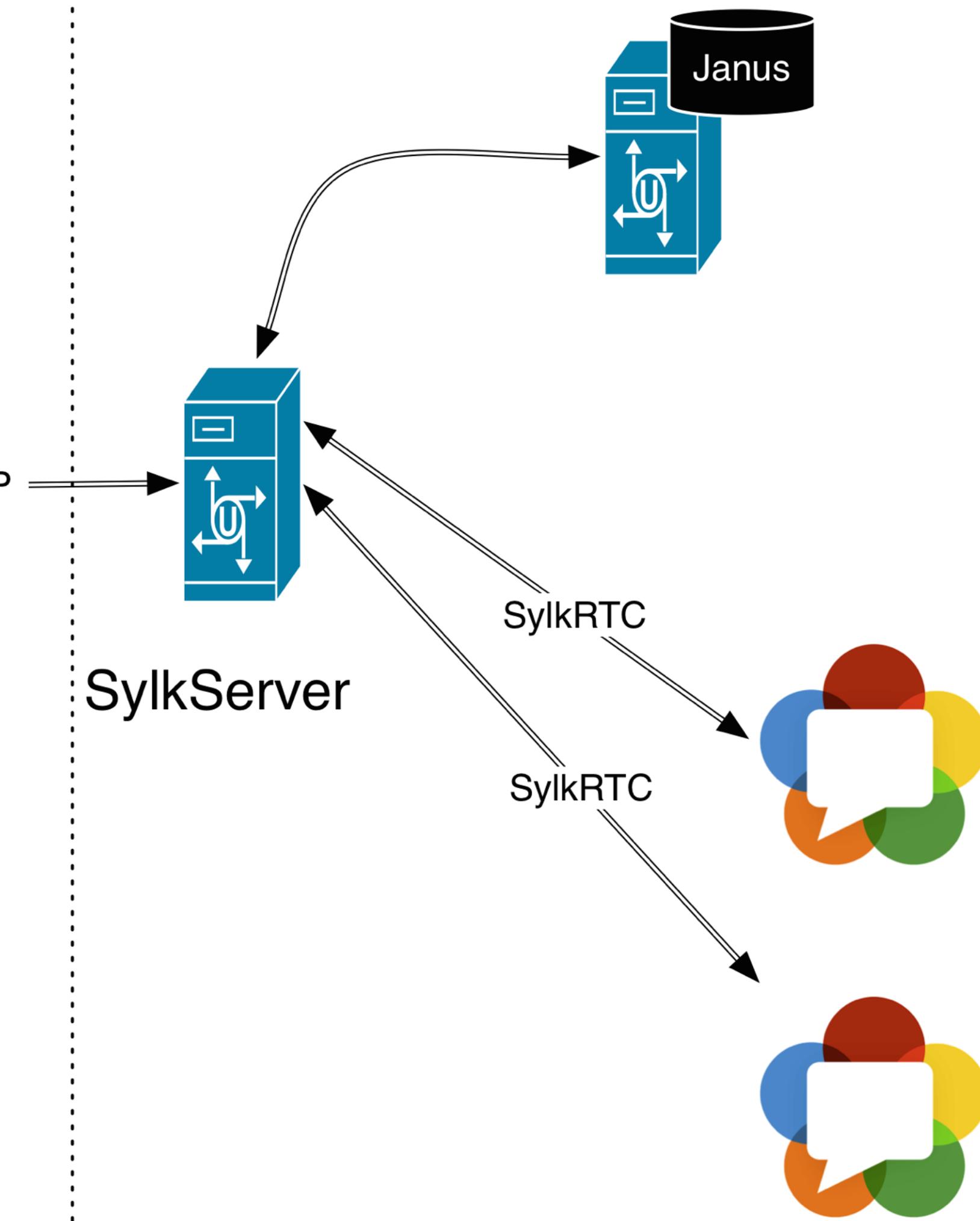


**GATEWAY**

## Infraestructura SIP

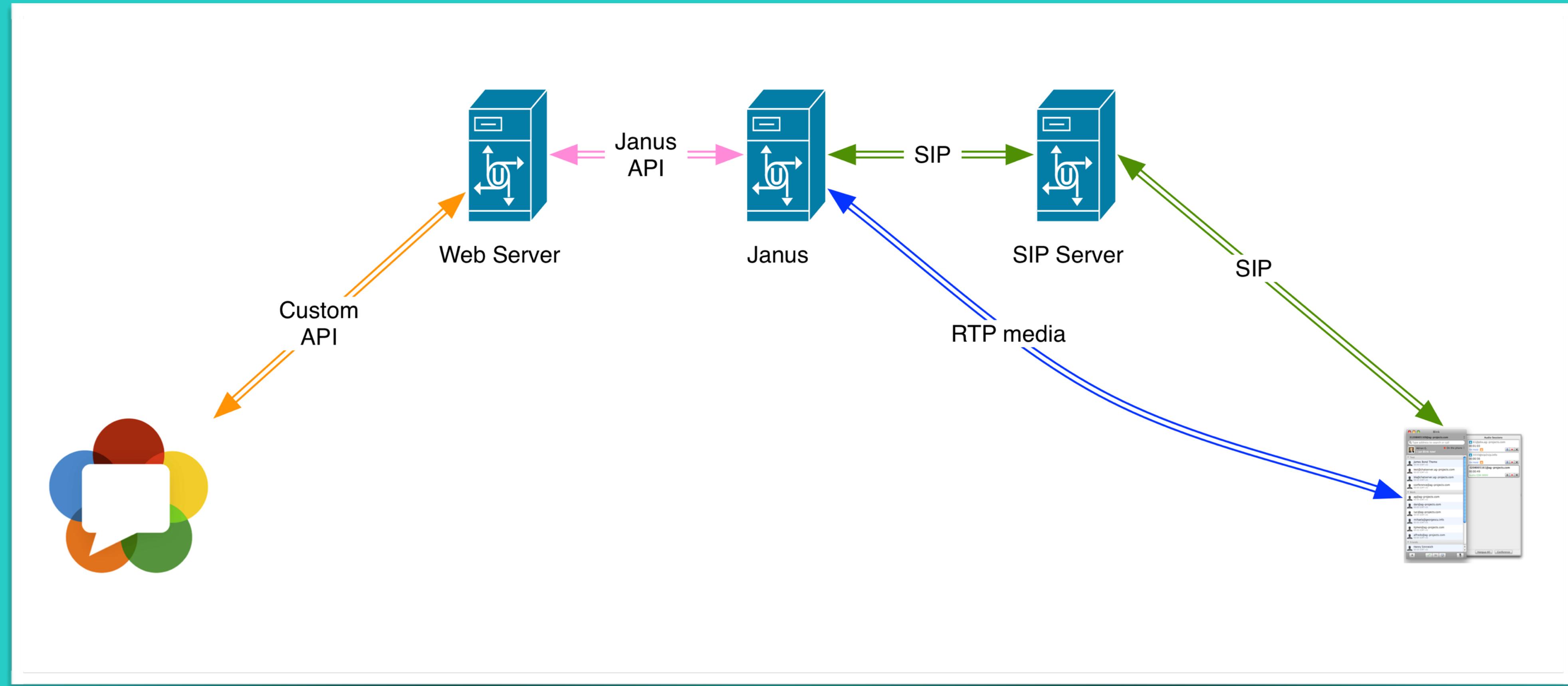


## WebRTC



# Simple SIN *transcoding*

# Janus



GitHub, Inc.

Explore Features Enterprise Pricing

Sign up Sign in

meetecho / janus-gateway

Watch 93 Star 363 Fork 166

Contributors Commits Code frequency Punch card Network Members

Contributions: Commits ▾

Feb 9, 2014 – Nov 5, 2015

Contributions to master, excluding merge commits

30  
20  
10  
0

April July October 2015 April July October

**#1**

Iminiero 100 commits / 7,656 ++ / 2,613 --

20  
0

April October April October

**#2**

saghul 77 commits / 1,051 ++ / 1,116 --

20  
0

April October April October

This screenshot shows the GitHub repository page for 'janus-gateway' by 'meetecho'. The page displays various metrics and activity history for the repository. At the top, there are links for 'Explore', 'Features', 'Enterprise', and 'Pricing', along with 'Sign up' and 'Sign in' buttons. Below the header, the repository name 'janus-gateway' is shown, along with 'Watch 93', 'Star 363', and 'Fork 166' counts. A navigation bar includes tabs for 'Contributors', 'Commits' (which is selected), 'Code frequency', 'Punch card', 'Network', and 'Members'. A date range 'Feb 9, 2014 – Nov 5, 2015' is specified, with a note that contributions are to the 'master' branch, excluding merge commits. A dropdown menu indicates 'Contributions: Commits'. The main area features a large green area chart representing commit frequency over time, with major peaks occurring around October 2014, April 2015, and October 2015. Below the chart, two detailed commit history cards are shown for contributors 'Iminiero' and 'saghul'. Each card includes a small profile picture, the contributor's name, their commit count, and the total number of additions and subtractions. Below each name is a smaller orange area chart showing a more granular view of their commit activity over the same time period as the main chart.



SylkServer



SylkRTC

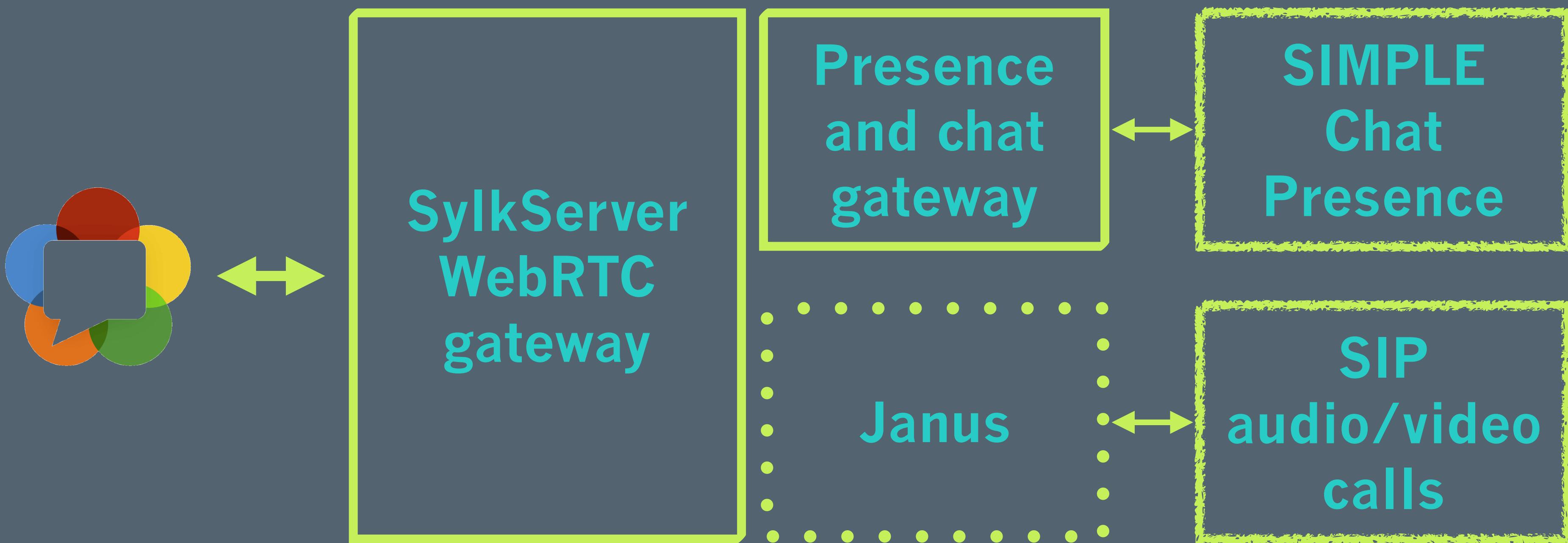
SIP

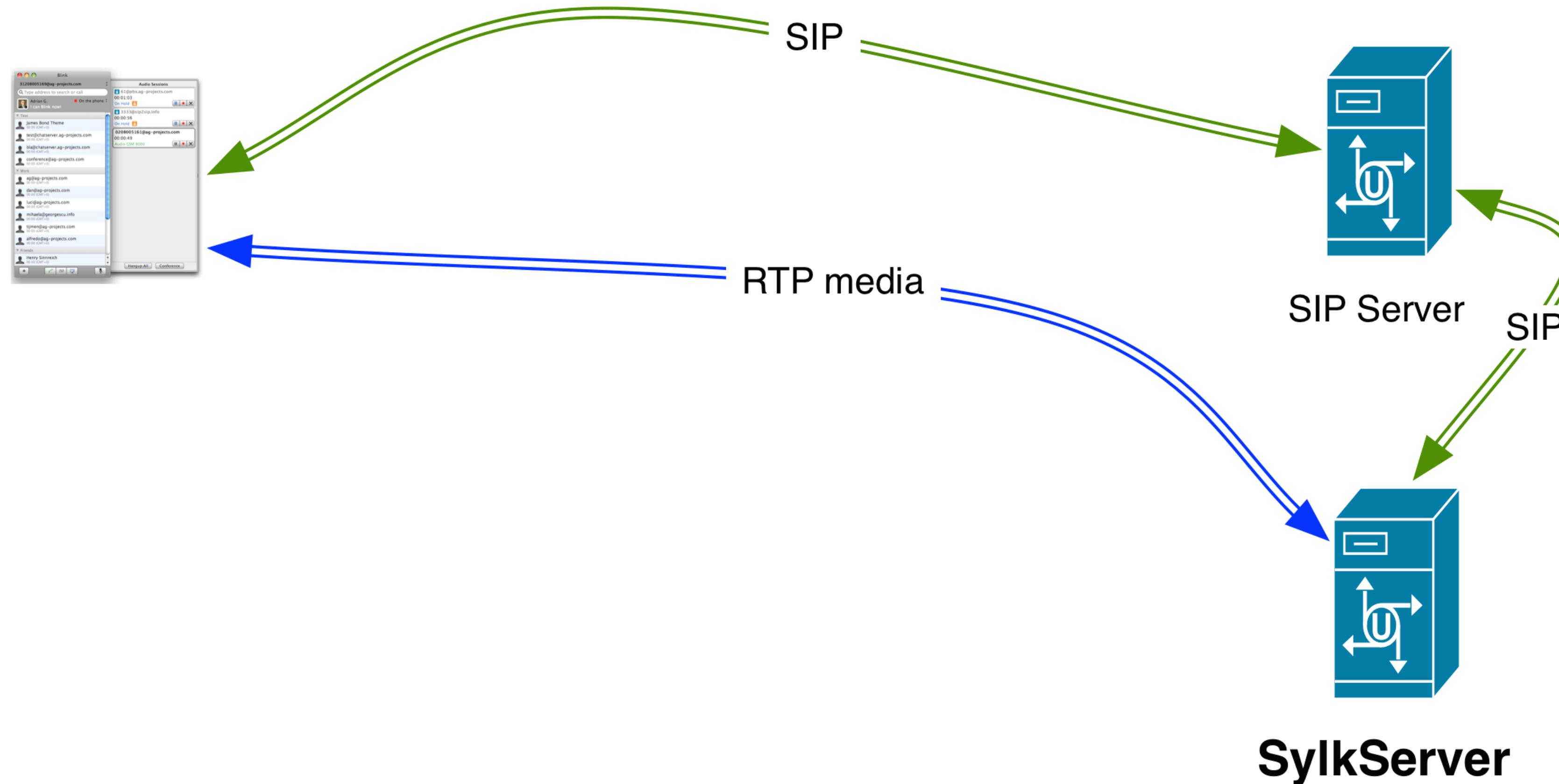
XMPP

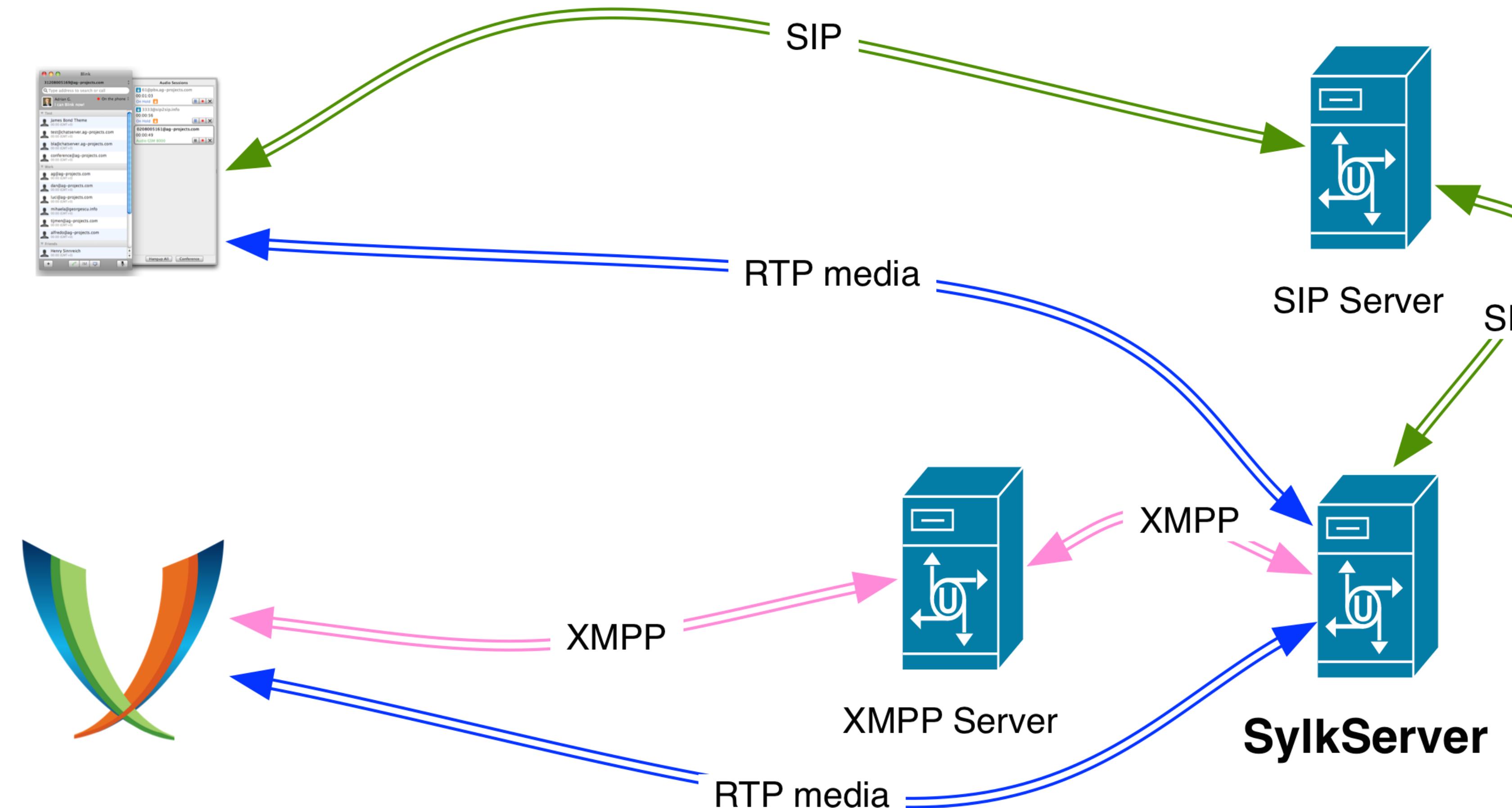
# SylkServer Core

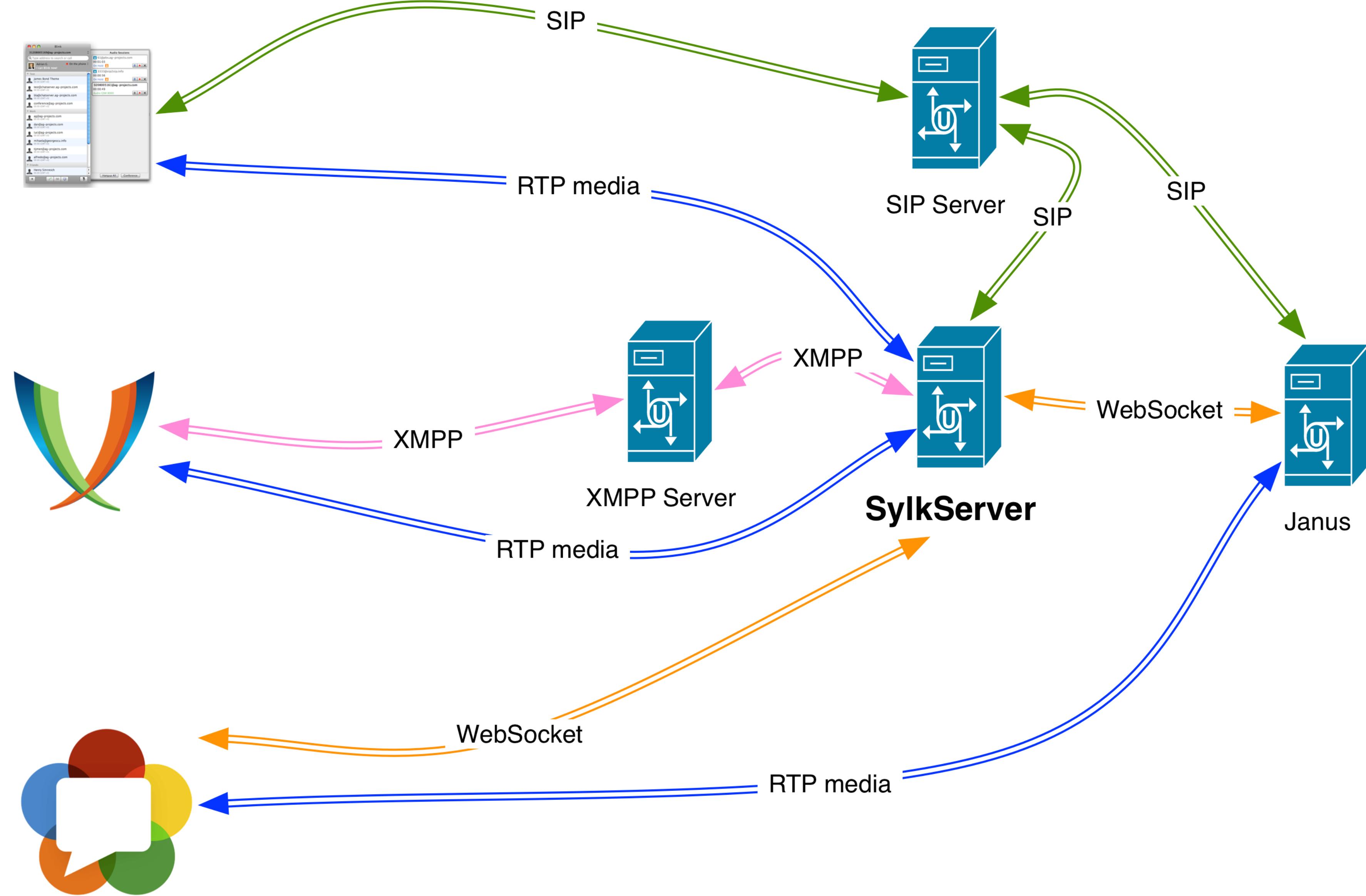
SIP SIMPLE SDK

Janus









# Project Moonshot



Blink for Web

Sign in with your SIP account

	saghul
	.....

**Sign In**

No SIP account? Create an account [here](#)

Copyright © 2015 AG Projects

Blink for Web

https://webrtc.sipthor.net

Search

Blade logo

# Blink for Web

Sign in with your SIP account

SIP address (username@domain)

Password

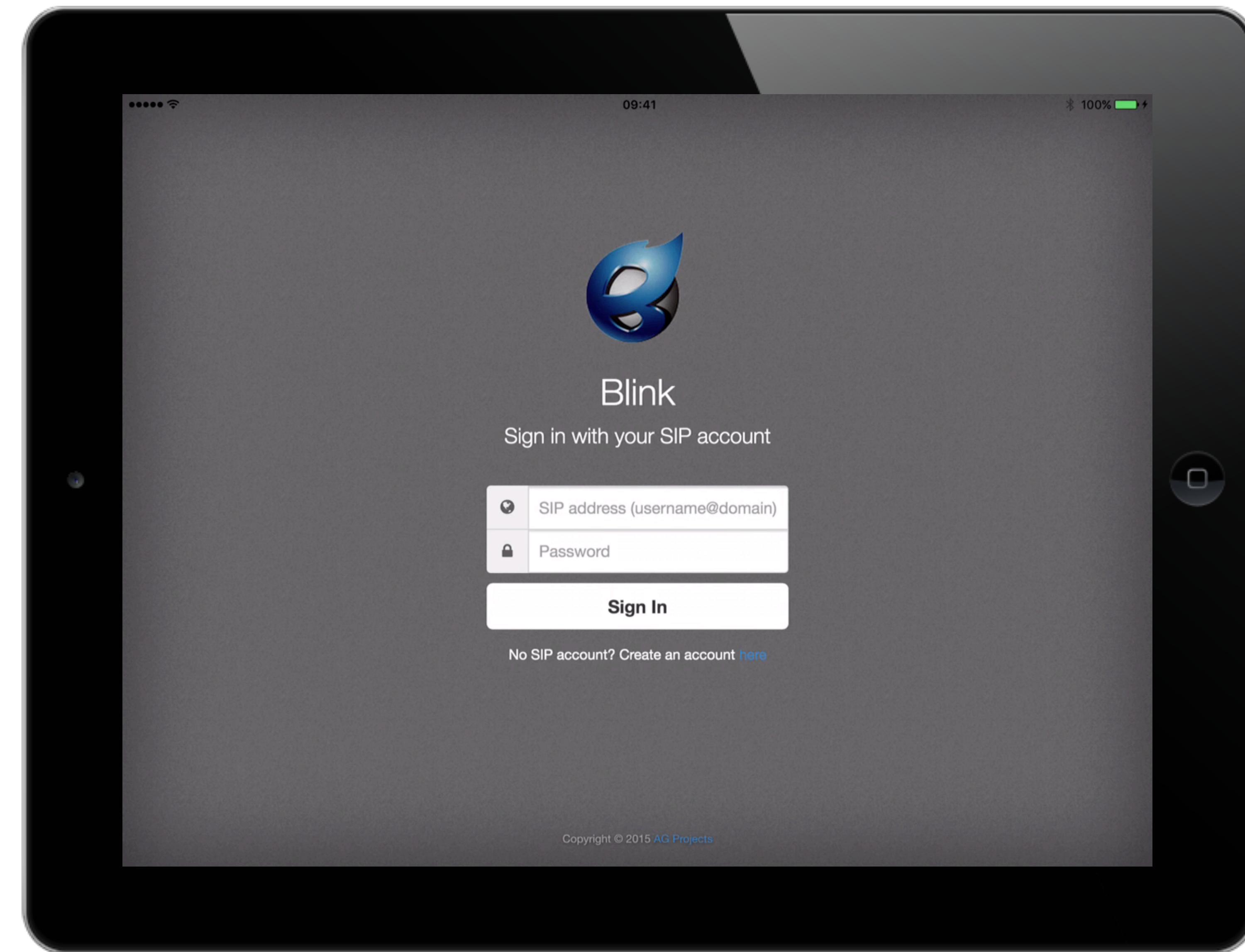
Sign In

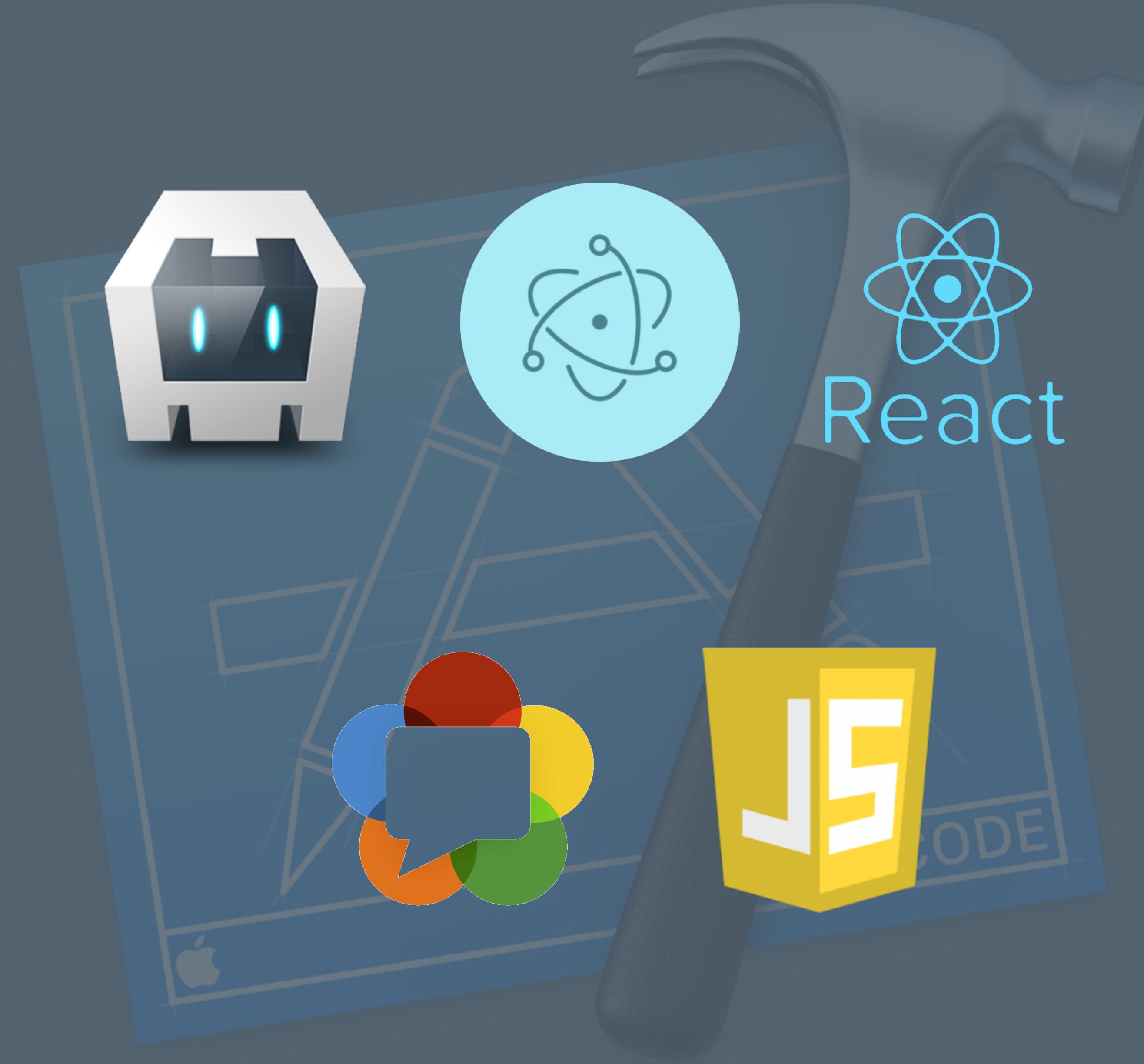
No SIP account? Create an account [here](#)

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React



# SylkServer 3

Multiples cuentas SIP

Llamadas audio / video

Sin *transcoding*

Zero-*configuration*

# SylkServer 3+

Multiconferencia de video

Chat

Presencia

Contactos

**meetecho**

**eF2F™**

DANKSCHEEN  
SPASSIBO NUHUN CHALTU YAQHANYELAY TASHAKKUR ATU SUKSAMA BİYAN SHUKRIA  
DANKSCHEEN SPASSIBO NUHUN CHALTU YAQHANYELAY TASHAKKUR ATU SUKSAMA BİYAN SHUKRIA  
GRACIAS ARIGATO SHUKURIA TASHAKKUR ATU SUKSAMA BİYAN SHUKRIA  
MERASTAWHY SANCO DHAINYAABAD WABEEJA MAITEKA YUSPAGARATAM  
TAVTAPUCH MEDAWAGE BAIRKA GOZAIMASHITA EFCHARISTO AGUY JE FAKAAUE  
JUSPAXAR KOMAPSUMNIDA MAAKE ATTO EKHMET HATUR GUI  
BAINKA GAEJTHO LAH SPASIBO DENKAUJA UNALCİEŞH EKO JU SIKOMO MAKETAI  
GRAZIE MEHRBANI PALLIES BOLZİN MERCI MINMONCHAR



**VOIP2DAY**



*nlnet*  
FOUNDATION

webrtc.sipthor.net



sylkserver.com

# Preguntas? Problemas?

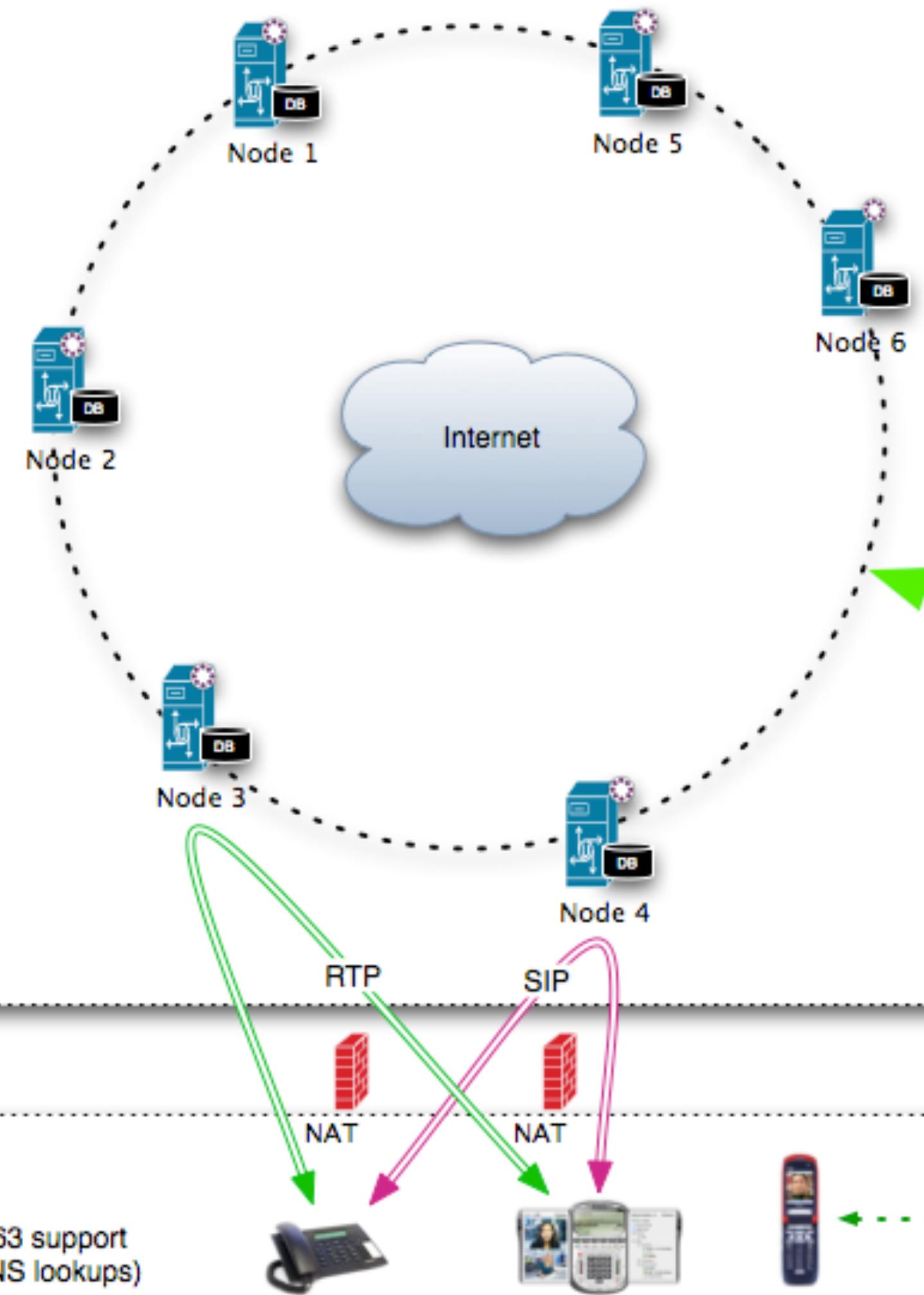


[bettercallsaghul.com](http://bettercallsaghul.com)

# SIP Thor

## Self-organizing SIP Infrastructure

**Self-organizing**  
Built-in disaster recovery  
No single point of failure  
Maintenance free



**Multiple Roles**  
SIP Proxy/Registrar  
RTP Media relay  
Presence Agent  
XCAP server  
MSRP Relay  
Voicemail  
Provisioning

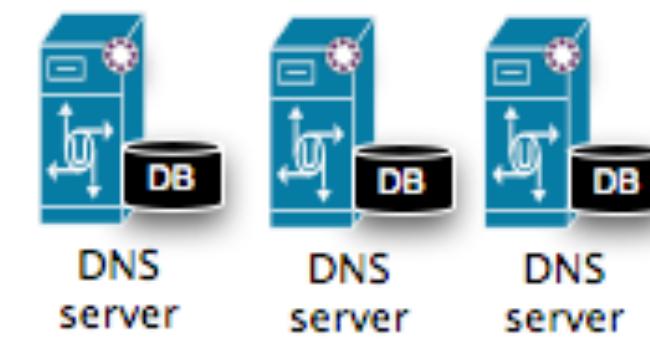
## SIP User Agents

User agents need only RFC3263 support  
(locating SIP services using DNS lookups)

## Self-provisioned DNS

Dynamic updates

```
sip_udp.example.com 0 1 proxy1
sip_udp.example.com 0 1 proxy2
sip_udp.example.com 0 1 proxy3
sip_udp.example.com 0 1 proxy4
sip_udp.example.com 0 1 proxy5
sip_udp.example.com 0 1 proxy6
sip_udp.example.com 0 1 proxy7
```



New nodes need to know their SIP Thor domain and have a valid TLS certificate accepted by the network

On JOIN locate and contact any alive overlay node  
Authenticate itself using pre-provisioned TLS certificate  
SIP Thor manager updates DNS records