

# Enabling SIP SIMPLE Presence for Call Centers and beyond

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# Introduce myself

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My name is Adrian Georgescu

- Founder and CEO of AG Projects
- Co-chair of Dutch ISOC SIP SIG

Involved in Open Source projects:

- Developer of OpenSIPS project
- MediaProxy - RTP media relay
- CDRTool - CDR mediation
- OpenXCAP - Presence Policy
- MSRP-Relay - IM media relay
- SIP chatserver – Conference bridge

## Introduce my company

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AG Projects is a software vendor specialized in serving companies like cable operators and ISPs with scalable SIP infrastructures.

We provide simple solutions for their complex problems.

Visit us at:

<http://ag-projects.com>

Or Booth D13

## My talk today

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- What is Presence
- Presence based on SIP SIMPLE
- Available SIP SIMPLE software
- Integration with Asterisk voice solutions





*“Presence will be the dial tone of the 21-st century”*

*Henry Sinnreich, “The Godfather” of SIP*

## Basic presence

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- Presence is defined as:  
"the willingness and ability of a user to communicate with other users on the network"
- Historically, Presence has been limited to "on-line" and "off-line" indicators. Dial tone indication moved from the network to the end-user.
- The notion of Presence however is much broader



# Rich presence

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New elements can be added to the basic Presence information that can be derived **automatically** from calendar, databases or user activity.

On the phone	Automatic, from phone
Away	Automatic, from security system
Appointment	Calendar
Holiday	Calendar
Meal	Calendar
Meeting	Calendar
Driving	Manual entry, movement sensor
In-transit	Driving, manual entry, calendar
Travel	Calendar
Vacation	Calendar
Busy	Manual setting
Permanent absent	Left company



*Ref: RPIDS-Rich Presence  
Information Data for SIP by  
H.Schulzrinne et.al., <draft-ietf-  
simple-rpid-10>*



## Presence adoption today

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What is presence today in terms of market adoption?

The common denominator is the **Online/offline indicator** present in IM clients. Most clients can add a Note.

As rich presence is concerned, the best example of a presence application today, which was never envisaged by a standards body: **LinkedIn (as transport) in with Tripit (as application).**

The screenshot displays the 'My Travel' interface for a user named Adrian. At the top, the Tripit logo is accompanied by the tagline 'Organize your travel'. Below this, a profile section for Adrian is shown, including a profile picture, a 'Welcome, Adrian' message, and location information: 'You're in Haarlem, Netherlands. You've traveled 11,697 km to 1 location including'. Action buttons for 'Summary', 'Add trips', and 'Share tri...' are visible. The 'Your upcoming trips' section lists a trip for January 2009 to Miami, FL, from Jan 31 to Feb 4, with a link to the ITEXPO exhibit. The 'Who's close to you' section shows contacts in Haarlem, Netherlands, including Arnaud van... (Apr 14 2009) and Perry Ismangil (Jan 31 - Feb 4 2009).



# Presence redefined

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If the IETF would start the standardization works again today, it would define it differently.

Presence redefined by Dean Willis, the chairman of the IETF SIP SIMPLE working group:

"Dynamically updated information about the state of selected entities, where the information, states, selection, and dynamicity of update are variable and appropriate for the application."

"Future of Presence 2008", den Haag

## Context aware communications

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For a voice applications, Presence now plays the role of enabling Context Aware Communications. By combining a communication channel with rich Presence information it is possible to improve tremendously the way we communicate:

- When am I available to communicate
- By what means am I willing to communicate
- For whom am I available

# Presence for call center applications

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If your business is a call center, you want to communicate efficiently with your customers:

- Use instant messaging instead of disrupting phone calls
- Automatic call back when idle
- Monitoring queue waiting time without annoying IVR
- Share applications with customers

# Presence and SIP protocol

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There is a myriad of poorly integrated and not-future proof solutions. SIP is a much better choice for the integration of audio, video, Presence and IM in a future proof solution.

- For its **user location function** function, SIP is a natural tool for conveying end-to-end information between end-user devices
- For its **generic events handling**, SIP is able to deliver arbitrarily asynchronous notifications between SIP devices
- Presence can be combined with voice, video and IM functions, to provide **context aware communications**

# SIP SIMPLE standards

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SIP for Instant Messaging and Presence Leveraging Extensions (**SIMPLE**)  
IETF WG produces interoperable standards for SIP, IM and Presence.

- **SIP methods** that carry the information:
  - ✓ Publish, to publish information
  - ✓ Subscribe, to subscribe to published information
  - ✓ Notify, to notify changes for subscribed information
- **Policy** to manage subscriptions:
  - ✓ The XML Configuration Access Protocol (XCAP) specification allows a client to read, write and modify Presence configuration data

The standards emerged in 2008.

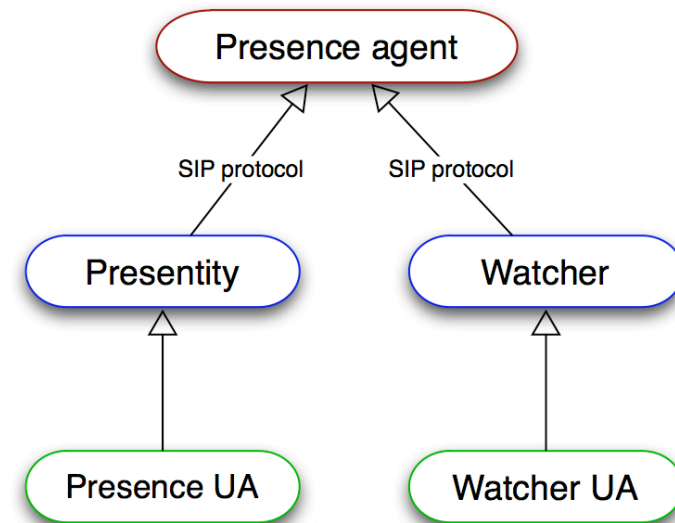


# SIP SIMPLE data model

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Presence model entities:

- **Presentity**, the publisher
- **Watcher**, the subscriber
- **Presence agent**, the aggregator



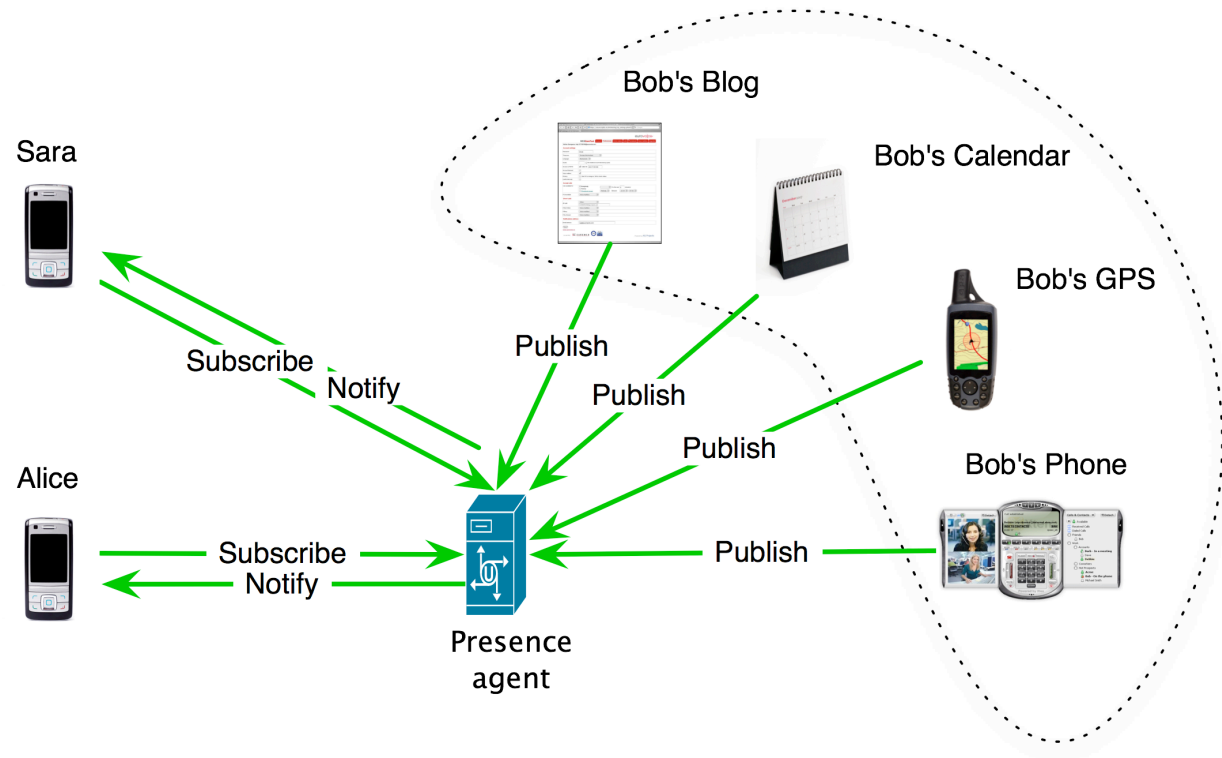
# SIP SIMPLE presence agent

The presence agent is an infrastructure component that assists the composition and dissemination of Presence from multiple SIP devices

- SIP methods:

- ✓ **Publish**
- ✓ **Subscribe**
- ✓ **Notify**

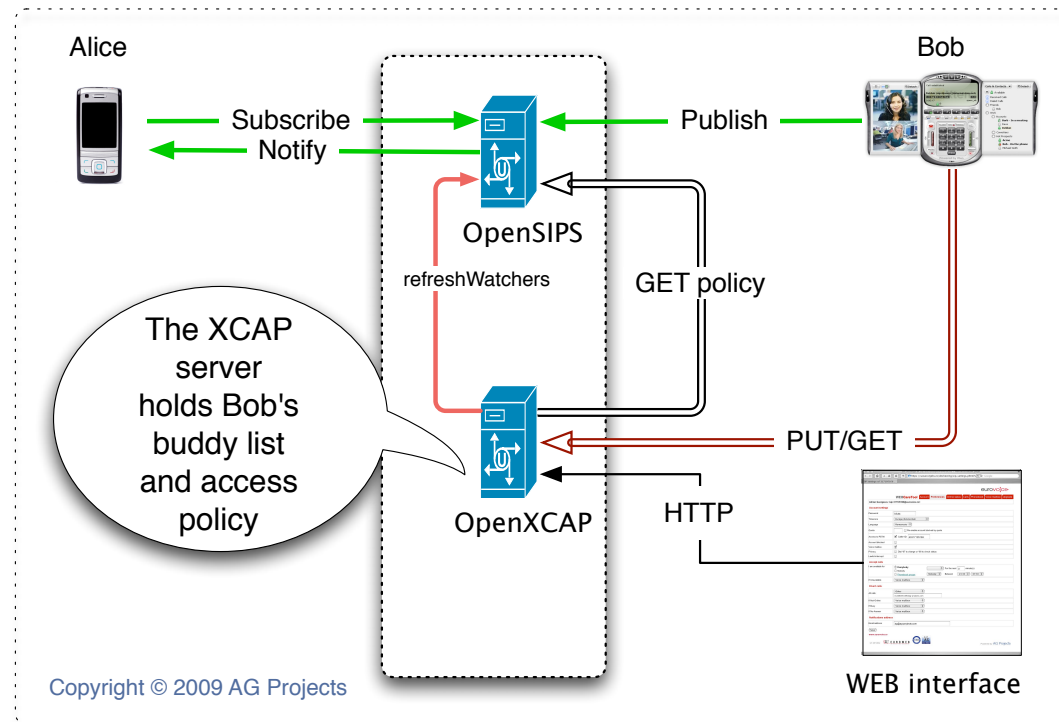
- Policy must be known to the agent



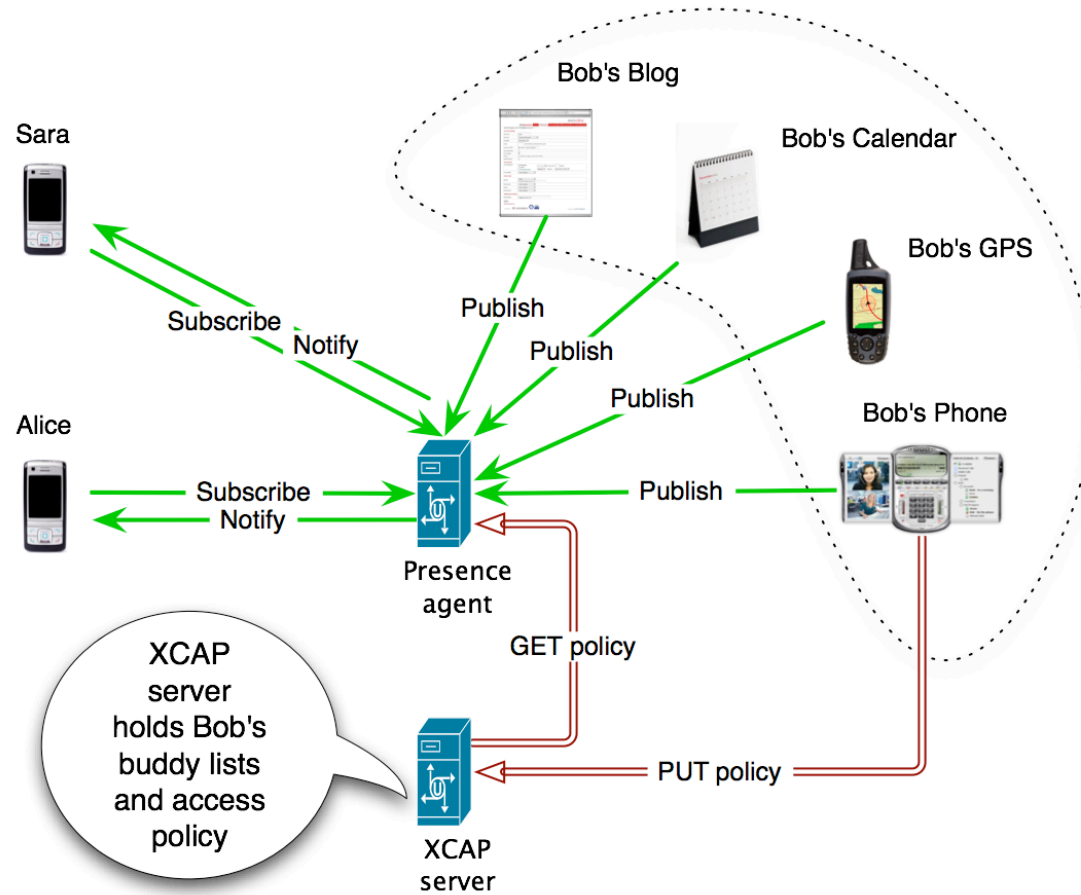


# SIP SIMPLE policy server (XCAP)

- Persistent storage container for buddy lists and user access control
- Synchronize multiple devices with same data
- Publish presence data when SIP devices are off-line

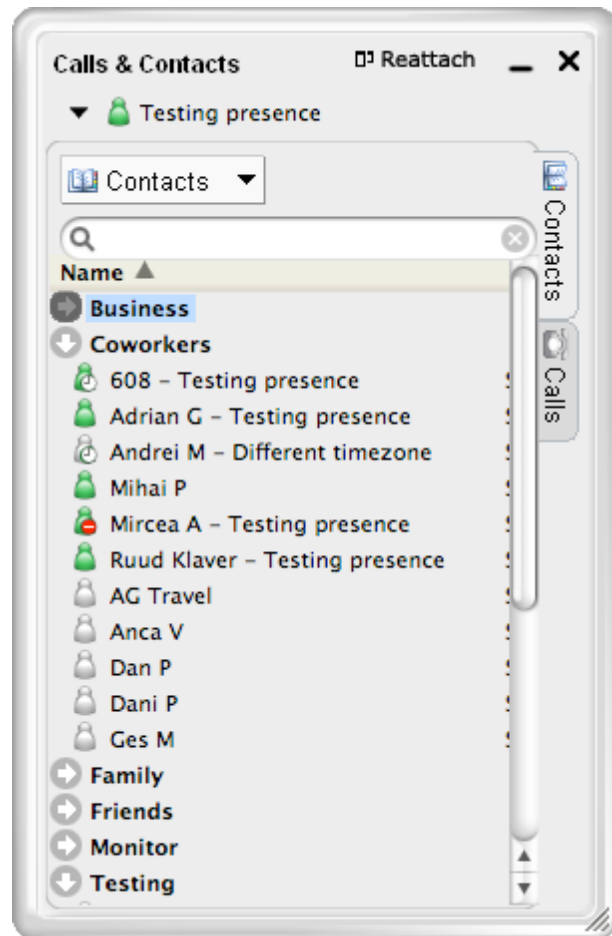


# SIP SIMPLE clients and servers



# SIP SIMPLE basic presence example

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- Busy, online/offline
- A text Note
- Little capability to take calling decisions based on them

# SIP SIMPLE rich presence example

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**Person id: zawmidyn**

Timestamp: 2009-01-14 23:02:26

Note(en): Big book, big bore. -- Callimachus

Activities: appointment, meal

Mood: unknown

Place information: Audio unknown, Video toobright, Text uncomfortable

Private conversation possible with: Audio, Text

Current sphere: Home

Status icon: <http://sipsimpleclient.com/StatusIcons/available.png>

Current user time: 23:02 (UTC+1)

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**Service id: yehyejxe**

Status: open

Contact priority 0.5: <mailto:alice@ag-projects.com>

Relationship: self

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**Device id: uerzehmc**

Note(en): Powered by ag-projects/sipclient-0.3.0-pjsip-1.0.1-r2421

Device is idle

Last input at: 2009-01-14 22:59:56

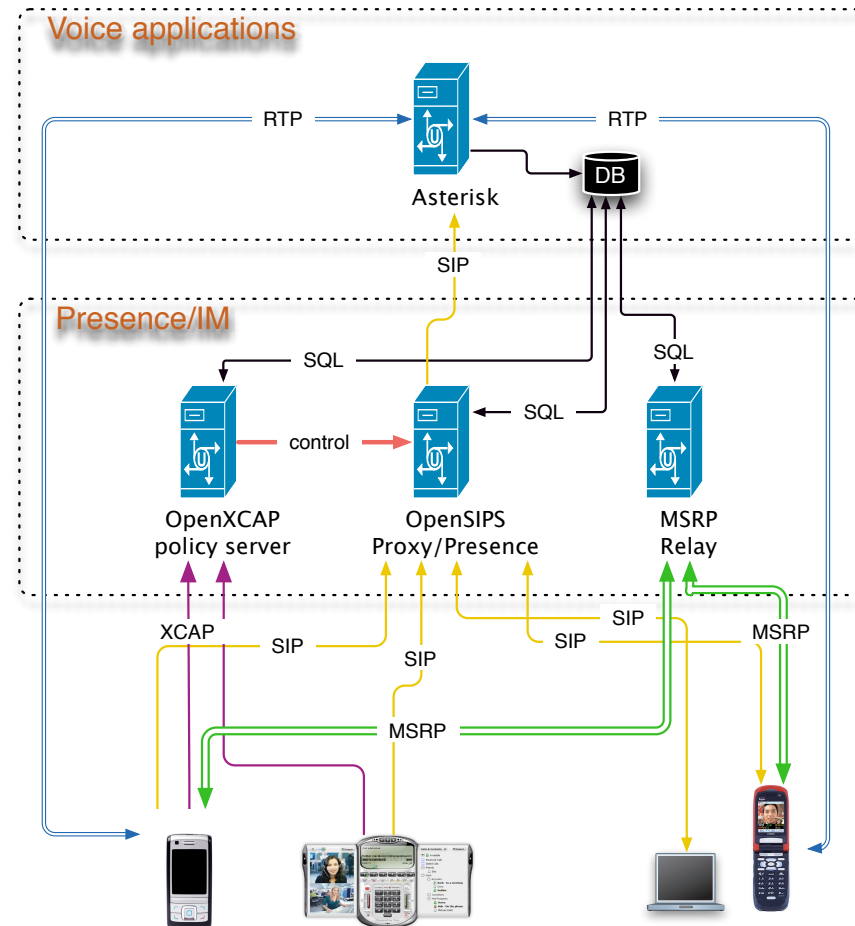
## SIP SIMPLE software

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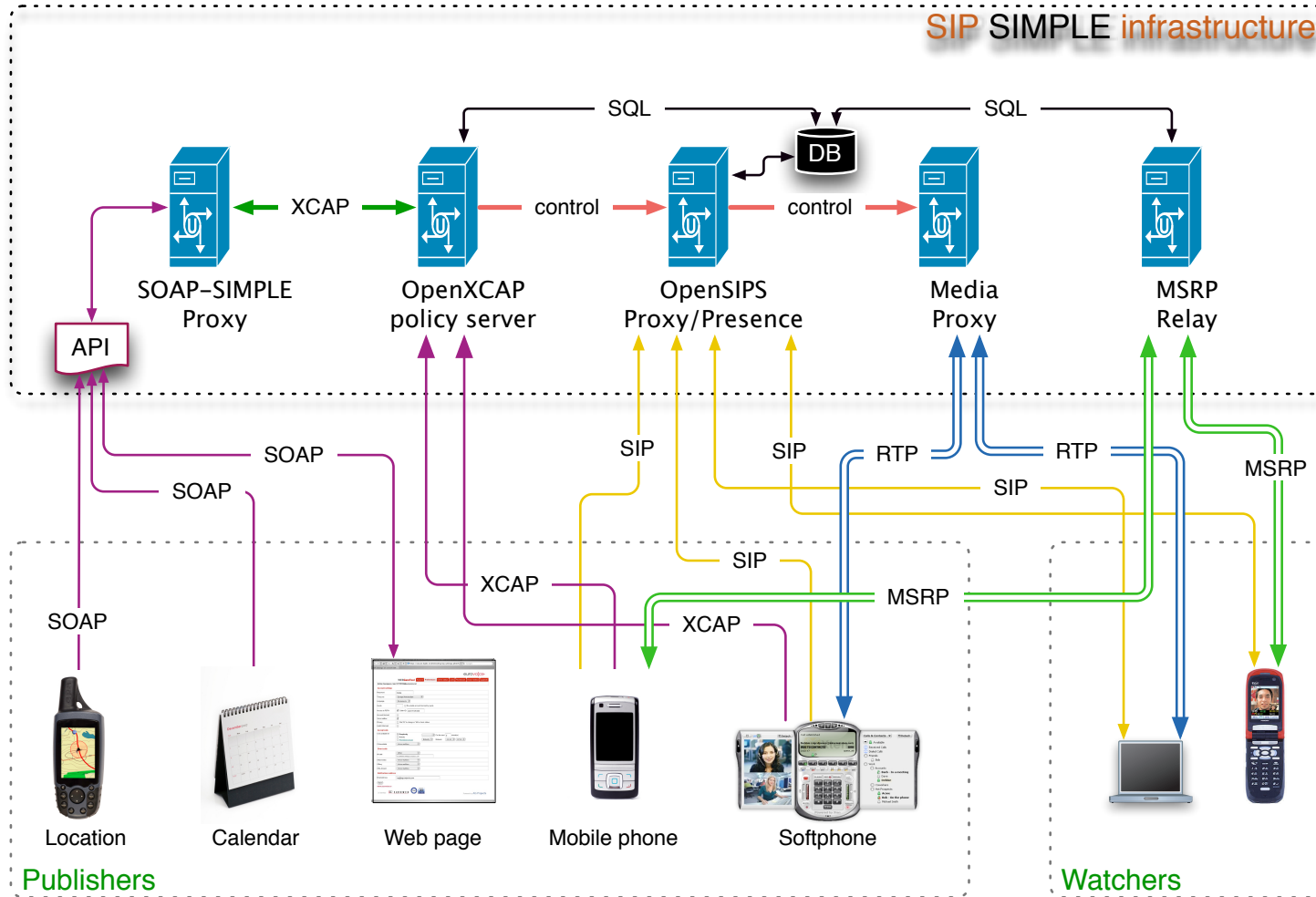
- SIP Presence Agent  
<http://OpenSIPS.org>
- XCAP Policy server  
<http://OpenXCAP.org>
- SIP SIMPLE client library  
<http://SipSimpleClient.com>

# SIP SIMPLE integration with Asterisk

- OpenSIPS as SIP Registrar/Proxy/Presence agent
- Asterisk used for all voice applications
- Common database storage
- Advanced voice, IM, and presence apps



# SIP SIMPLE testbed <http://sip2sip.info>





## My final slide

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Presence is an enabler rather than a stand alone product. You cannot charge money for it directly but if you do not have it, customers chose for other services that provide it.

My name is Adrian Georgescu

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Booth D13

At 12:00 I provide a live presence demonstration in the Presentation theatre.