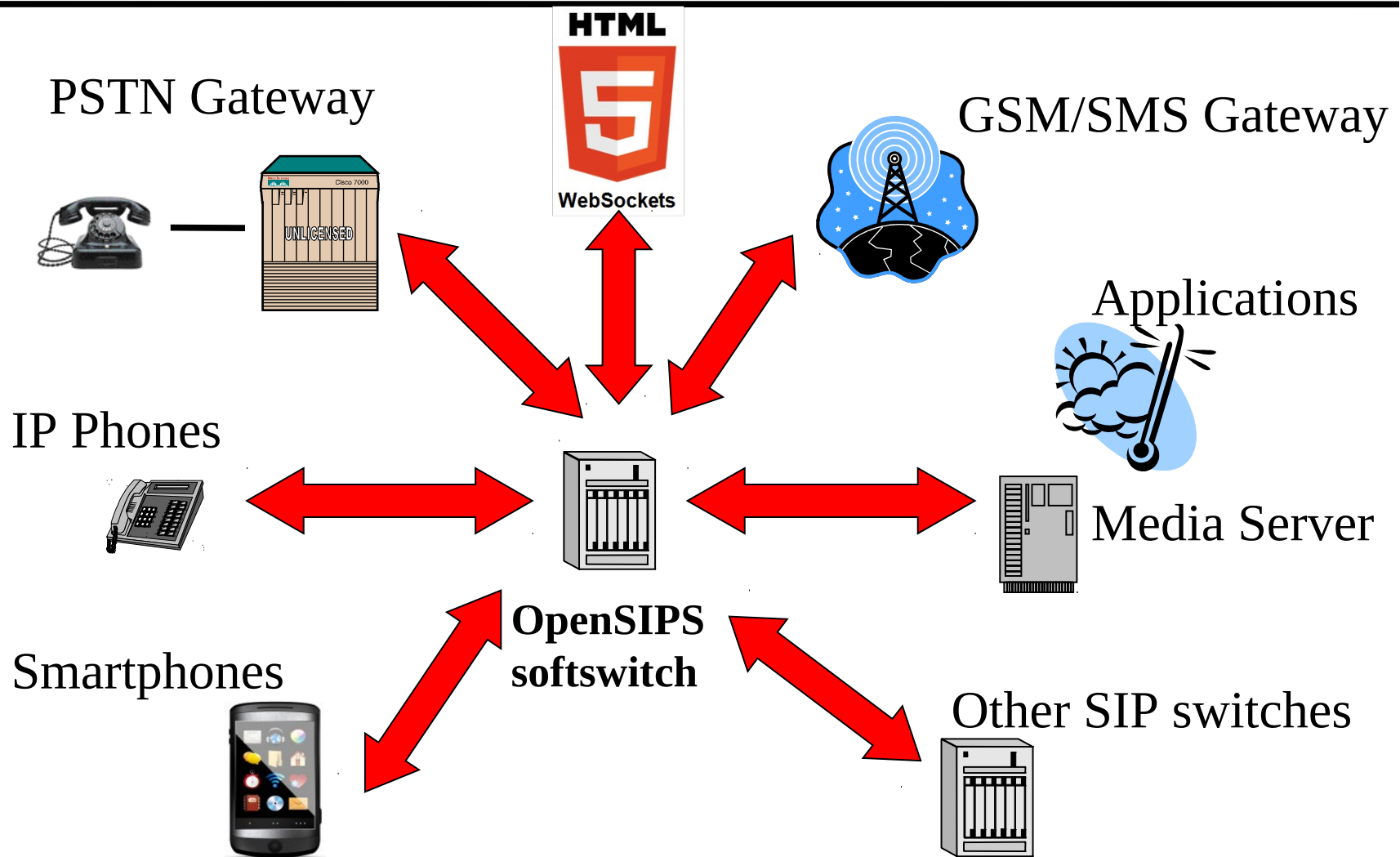# OpenSIPS Summit - Keynotes

Bogdan-Andrei Iancu
Founder OpenSIPS Project
OpenSIPS Solutions

About OpenSIPS

What OpenSIPS is ?

- primarily a SIP proxy

- multi purpose proxy

- doing voice, video, presence, IM and other

- signaling only, no media

PSTN Gateway

HTML 5 WebSockets

GSM/SMS Gateway

Applications

IP Phones

OpenSIPS softswitch

Media Server

Smartphones

Other SIP switches

Why OpenSIPS ?

- High throughput (calls, cps, registrations)

- Flexibility for routing and integration

- Effective application building (120 modules)

OpenSIPS project

- Open Source, GPL

- Tens of contributions

- Community of thousands

- Tens of thousands of deployments (shodanhq.com)

OpenSIPS knowledge transfer

- Documentation & manuals

- Advanced tutorials

- Webiners

- Mailing list, IRC channel

- Ebootcamp training

- Certification program

Usage scenarios

- Traffic / load intensive (cps, parallel calls)

- Complex logic (routing / integration)

Load intensive

- Simple logic, less I/O, high traffic

- Ideal for scenarios like SBCs, Trunking, Wholesaling,
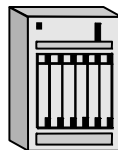
Load-Balancers, Front-ends, Registrar and other

Logic intensive

- Complex routing logic, interaction with external entities, intensive I/O (SQL, noSQL, HTTP, LDAP)

- Multiple interfaces available : MI, Events, BIN, REST

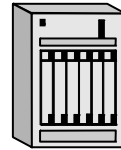- Ideal for scenarios like Residential, Hosted/Virtual PBXes

Wild Internet

SIP network

OpenSIPS SBC

- Nat traversal
- security filter
- SIP validation
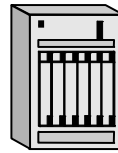- Load balancer
- dialog aware
- HA

SIP network

**OpenSIPS
SIP Server**

- **HTTP**
- **shell**
- **network**
- **xmlrpc**

- SIP router
- Presence (SLA/BLA/BLF)
- Back-2-Back – signaling
- Call Center
- Class 5 (non-media)
- trunking server

Wild Internet

SIP network

- LCR
- prefix routing
- LNP server
- GW controller
- Topology Hiding

OpenSIPS Router

A bit of History

5 years from the first OpenSIPS release
4th of August 2008 – OpenSIPS 1.4.0

Code

- APT repository, thanks to Dynamic Packet

- YUM repository, thanks to Nick Altmann

- Migration from SVN to GIT

- Migration from SourceForge to GitHub

Releases

- New release policy

- Release cycle

- LTS releases

- Even more open to contributions and involvement

Foundation

- OpenSIPS Software Foundation

- Open is not only about the code

- OpenSIPS Summit is a result of the OSF

Documentation

- Re-work of the online documentation

- Even more advanced tutorials

- More examples and full scripts

- Generating scripts from templates

Starting the Summits

- By OpenSIPS project

- For the OpenSIPS community

- Updates and news on the project

- Presenting real life cases

Present days

1.10 major release

- 1.10 beta release on 5th of August

- 1.10 it is not an LTS, 1.11 will be !

- 1.9 to be still maintain for ~ 6 months (until 1.11)

- As LTS, 1.8 still have ~ one year to go

Easy scripting

- New MATH module

- New transformation (hexa)

- Goes into combination with named flags, routes with

parameters, script tracing

TCP support

- Asynchronous read/write on TCP connections

- Optimized for large number of active connections

- Better detection of TCP based attacks

Interfacing

- REST client – new module

- XMLRPC – new MI module

- USRLOC – events on AORs

- REGISTRAR – per OAR extra data

NoSQL support

- SQL to noSQL wrapping module

- Bulk removal on Local Cache

WebSockets

- Support for routing WS and WSS transport protocol

- SIP WEB client on opensips.org service

SCA support

- Shared Call Appearance support as defined by

BroadWorks SIP Access Side Extensions Interface

- Integrate with dialog module to automatically generate

the Call-Info data

- Self sufficient SCA implementation (generate and

distribute data)

Dialog replication

- New Binary INternal Interface (BIN) for inter OpenSIPS communication

- Dialog module replicates in realtime the dialogs and their state to other OpenSIPS instances

- Full dialog recovery on other OpenSIPS instances

Sangoma transcoding

- Drive (remotely) Sangoma transcoding D cards

- Signaling stay in OpenSIPS, RTP on the cards

- Multiple cards controlled by same OpenSIP instance

- Control over the codec selection too

- The transcoding is SIP transparently done !
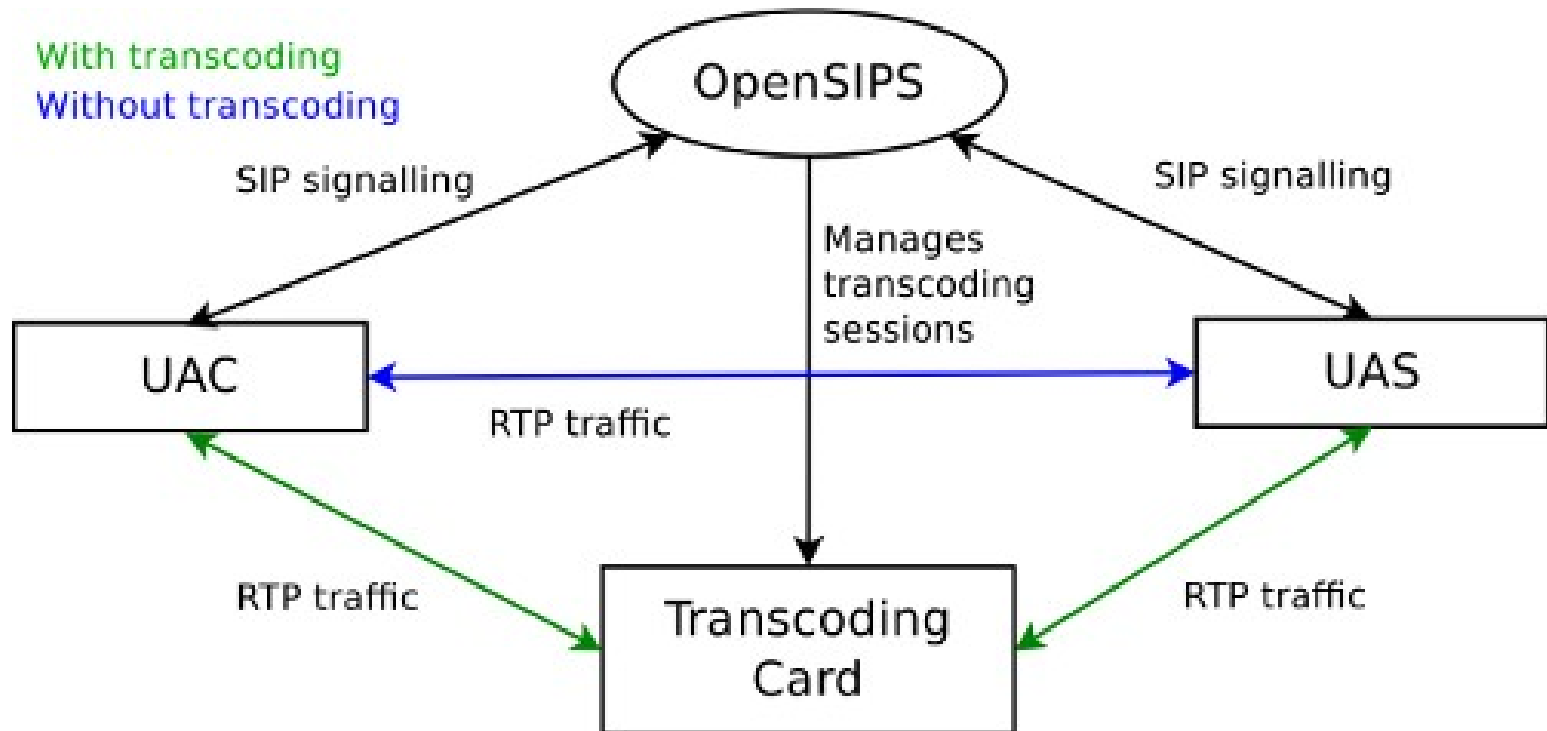
Future plans

Main direction

- Distribution / OpenSIPS clustering

- Integration with external apps

- Transport / Topology improvements

CacheDB Cluster

OpenSIPS Nodes
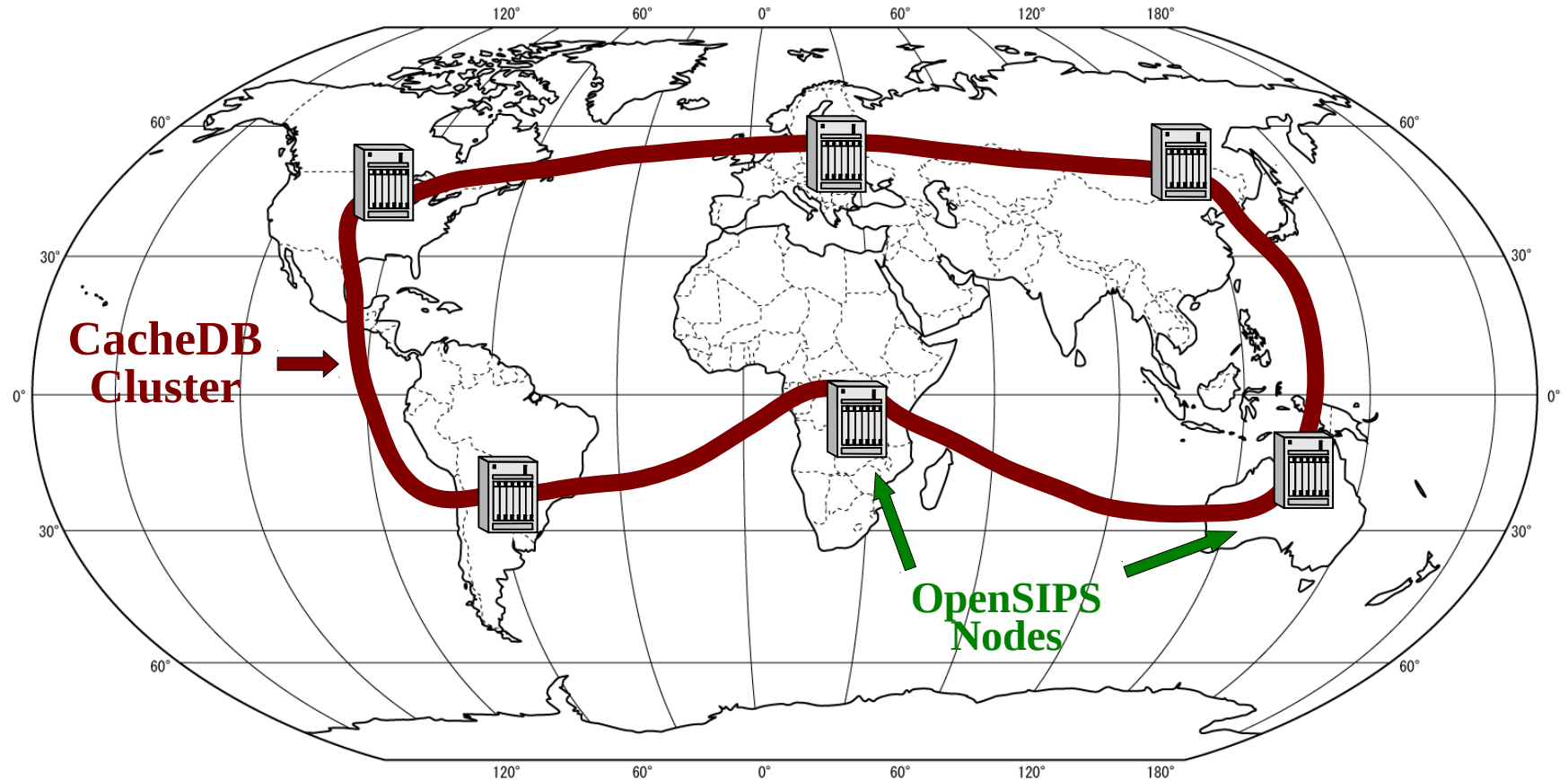
Distribution / Clustering

- Extend noSQL support / backends

- Extend BIN interface for more replication

(registrations, transactions, etc)

- Define standards for distributes dialog or registration

support

Integration

- More Events to make easier integration with external

apps

- Extend backends for MI or Events – stream oriented,

REST oriented.

Transport protocols

• API and module to dynamically provision the TCP/TLS

connections (rate, bandwidth, re-usage policy, TCP

parameters, SSL certificates)

• Cloud / Amazon better support – more control over

advertising or fake interfaces (to adapt to

Call Center

• Call queuing in OpenSIPS (signaling only)

• Inbound call center – multiple queues, sets of agents,

skills, priorities

• Integration with Media Server via the B2BUA engine

• To be used in combination with DID (DR module),

external IVRs, external dialers.

Next event

- Co-hosted with AstriCon

- October 2013, Atlanta

- Conferencing, Round table, Certification

OPENSIPS

Thank you for your attention
You can find out more at **www.opensips.org**
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www.opensips-solutions.com

Questions are welcome