



Call Centers with OpenSIPS

*Bogdan-Andrei Iancu
Founder OpenSIPS Project
OpenSIPS Solutions*

Call Center

- Call queuing in OpenSIPS (signaling only)
- Inbound call center – multiple queues, sets of agents, skills, priorities, statistics & reports
- Integration with Media Server via the B2BUA engine
- To be used in combination with DID (DR module), external IVRs, external dialers.

Call Center

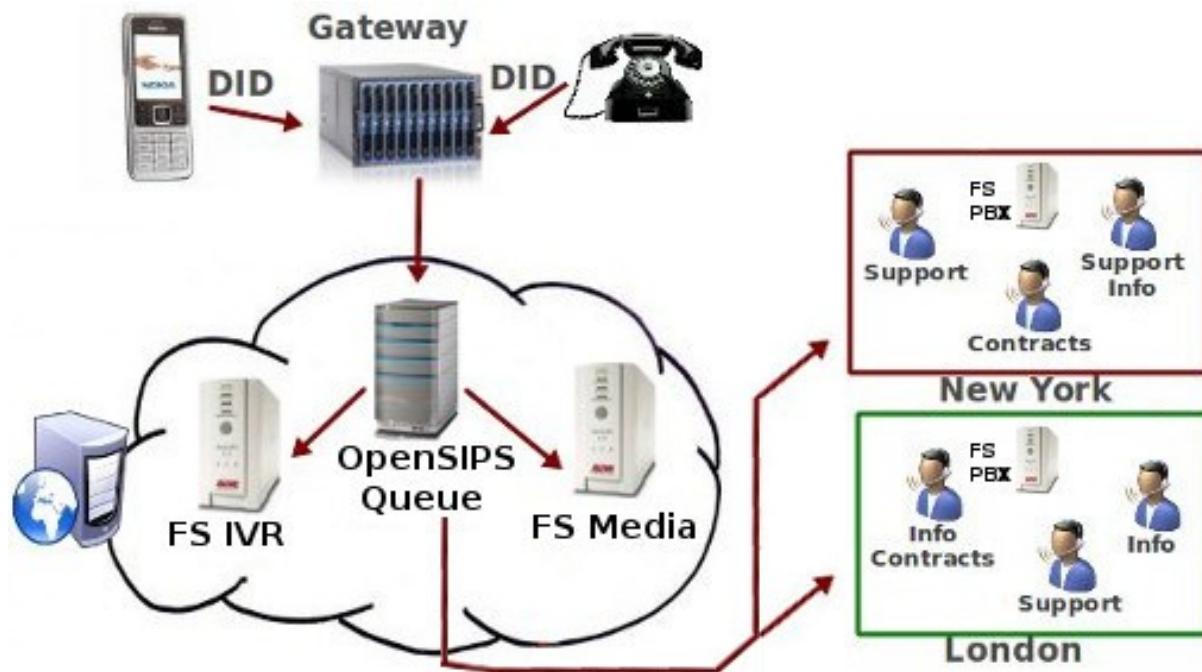
- Provides server side only, no specific tools for the agent side
- Targets large scale inbound call centers
 - > 1000 agents , > 100 000 cc
- Perfect solution to scale and grow existing small call centers
- Address also geo-distributed scenarios.

Before using OpenSIPS ...



and when using OpenSIPS...





Queues / Flows

- require a skill from the agent
- have a priority (in relation to other flows)
- have an announcements and MOH attached
- Identification string in CLI

Agents

- offer a set of skills (used to map to flows)
- have a SIP location (where to receive the call)
- agents can be logged in or not (via MI or from script, on registration)
- There is no need for specific tool on the agent side, but a local PBX may offer more class 5 features.

CDRs

- Per call attempt CDRs, directly from CC module
- CDR contains all CC related fields (caller, flow, agent, pickup time, etc)
- Separate CDR if a call is rejected by agent

CC statistics

- Global, per flow, per agent
- Dynamically created per flow, per agent

MI commands

- Listing agents and state
- Listing flows and status, load
- List calls and status

Choosing the flow

- Based on the dialed DID (using drouting)
- Using a front IVR

Inside the flow

- Announcement is injected if defined
- If agent with required skill is available, send the call
- No agent, keep the call in the queue and push media for MOH; order in the queue depends on the flow priority
- When agents are available, pull out calls from the queue

Agent handling

- If user rejects the call, call is sent back to queue or another agent (if available).
- Agent will receive in CLI display name a tag identifying the flow (as an agent may serve multiple flows)
- Call barging, transfer, listening, etc – requires a local PBX

Call Center demo

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

Questions are welcome