

Distributed SIP clusters with OpenSIPS

*Bogdan-Andrei Iancu
Founder OpenSIPS Project
OpenSIPS Solutions*

Open

- GPL, Open Source project
- tens of contributors, community of tens of thousands
- used from SMB to enterprises and grade-carriers

SIP

- SIP RFC 3261 + tens of SIP extensions
- SBC, trunking, billing, ITSP, router, call center

S

- Server (registrar, proxy, LB, B2BUA, SIMPLE, NAT, apps)
- 12000 cps, millions of parallel calls and subscribers
- Programmable and flexible (scripting with > 100 modules)

OpenSIPS builds and glues SIP infrastructures.

More than just code:

- **OpenSIPS eBootcamp training**
<http://ebootcamp.opensips.org>
- **OpenSIPS Development training**
<http://opensips.org/Training/DevelCourse>
- **OpenSIPS Security Alerts service**
<http://opensips.org/Resources/AlertsMain>

- **cache DB interface – cassandra, redis, memcached**
- **DNS caching**
- **Internal data sharing between instances**
- **RabbitMQ, LUA, HTTP integration**
- **enhanced SIP validation, complex SIP capturing**
- **more powerful dialog support**
- **Dynamic Routing – enhanced, added carriers**
- **GRUU support**
- **Troubleshooting support**

→ www.opensips.org/Main/Var180

Distributing OpenSIPS in a cluster

Geographical (coverage, QoS)

- Cover the map
- Best quality everywhere

Load (balancing, scaling)

- Millions of concurrent calls
- Tens of millions of subscribers

Redundancy (HA)

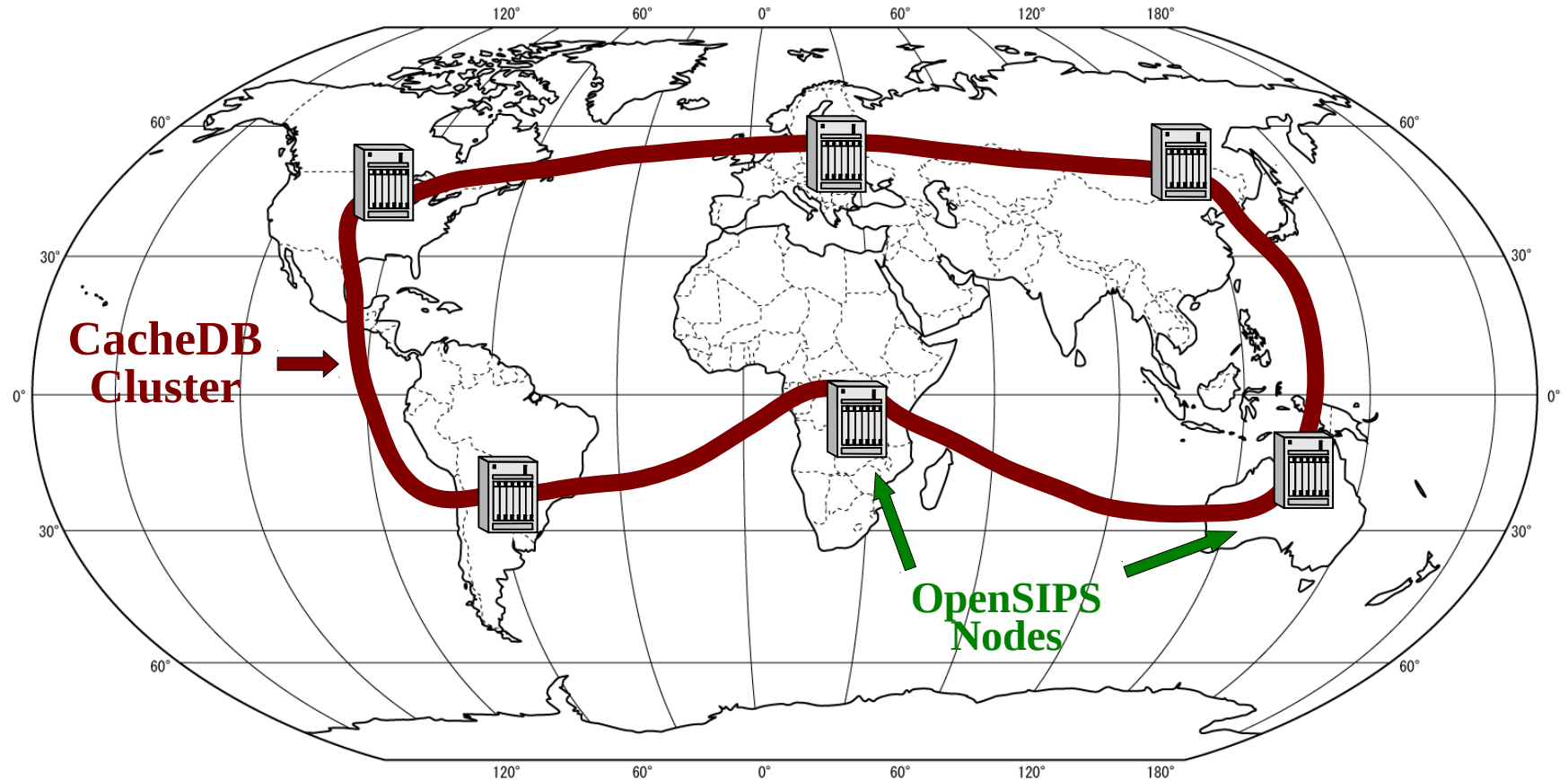
- Having a backup is a good idea
- For the 5 of nines you need more than 100%





Multiple OpenSIPS instances to act as a whole by **sharing internal data** (calls, registration, counters, statistics) or **runtime external data** (limits, credits, caches)

=> cache DB support (Key-Value databases) to link everything together; modules using the cacheDB interface to communicate and share



Demo time

Trunking - 2 active-active

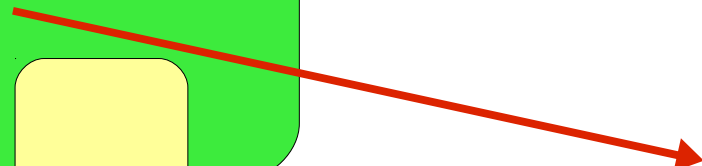
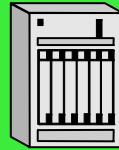
UAC1



10 cps



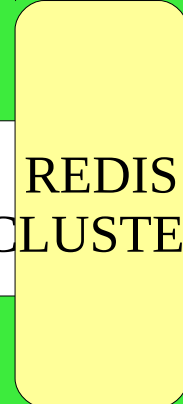
OpenSIPS



UAS



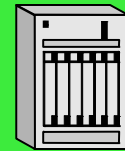
Shared CPS limit → REDIS CLUSTER
30 cps



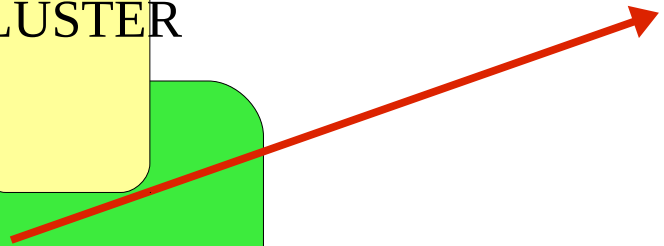
UAC2

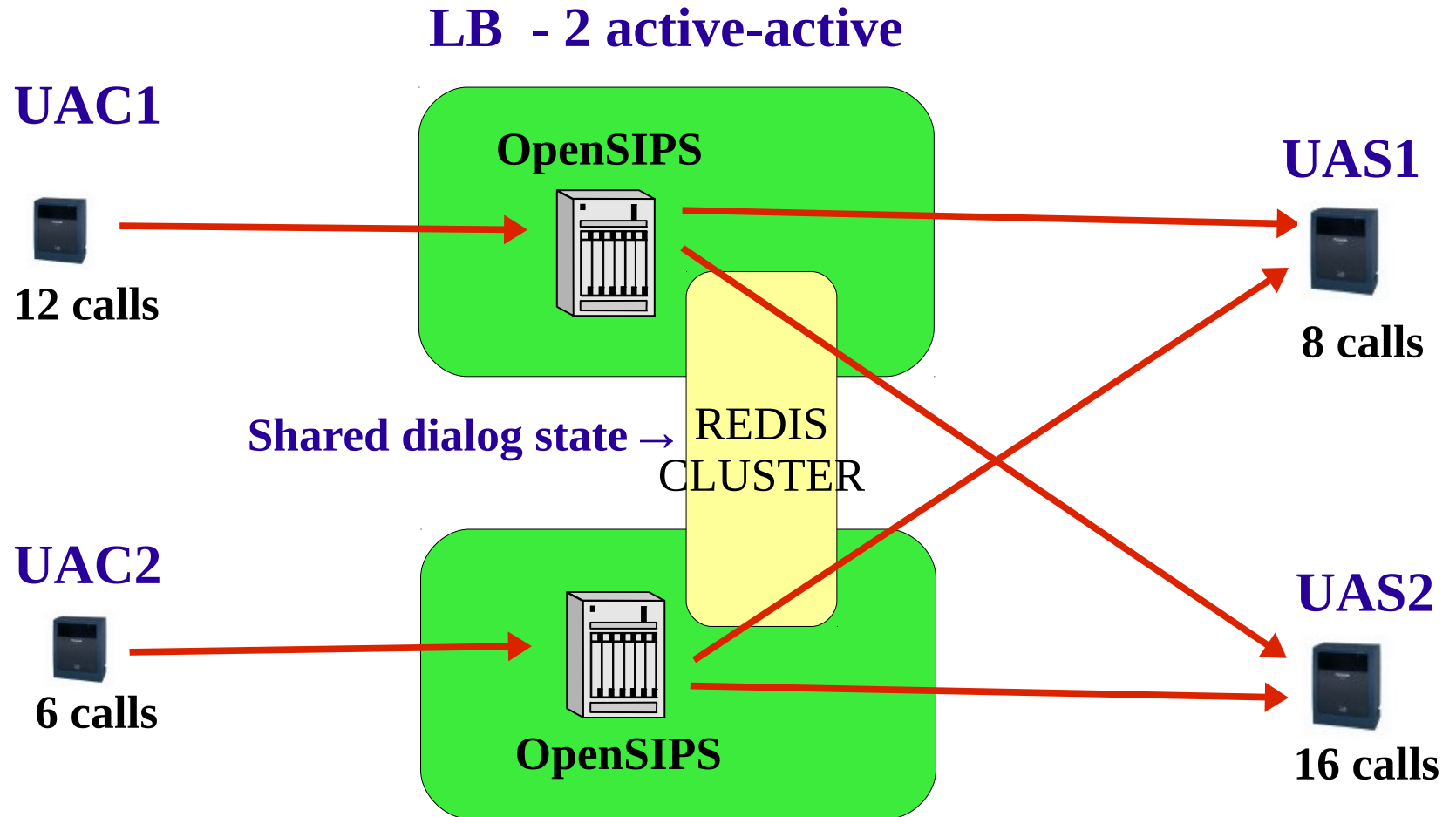


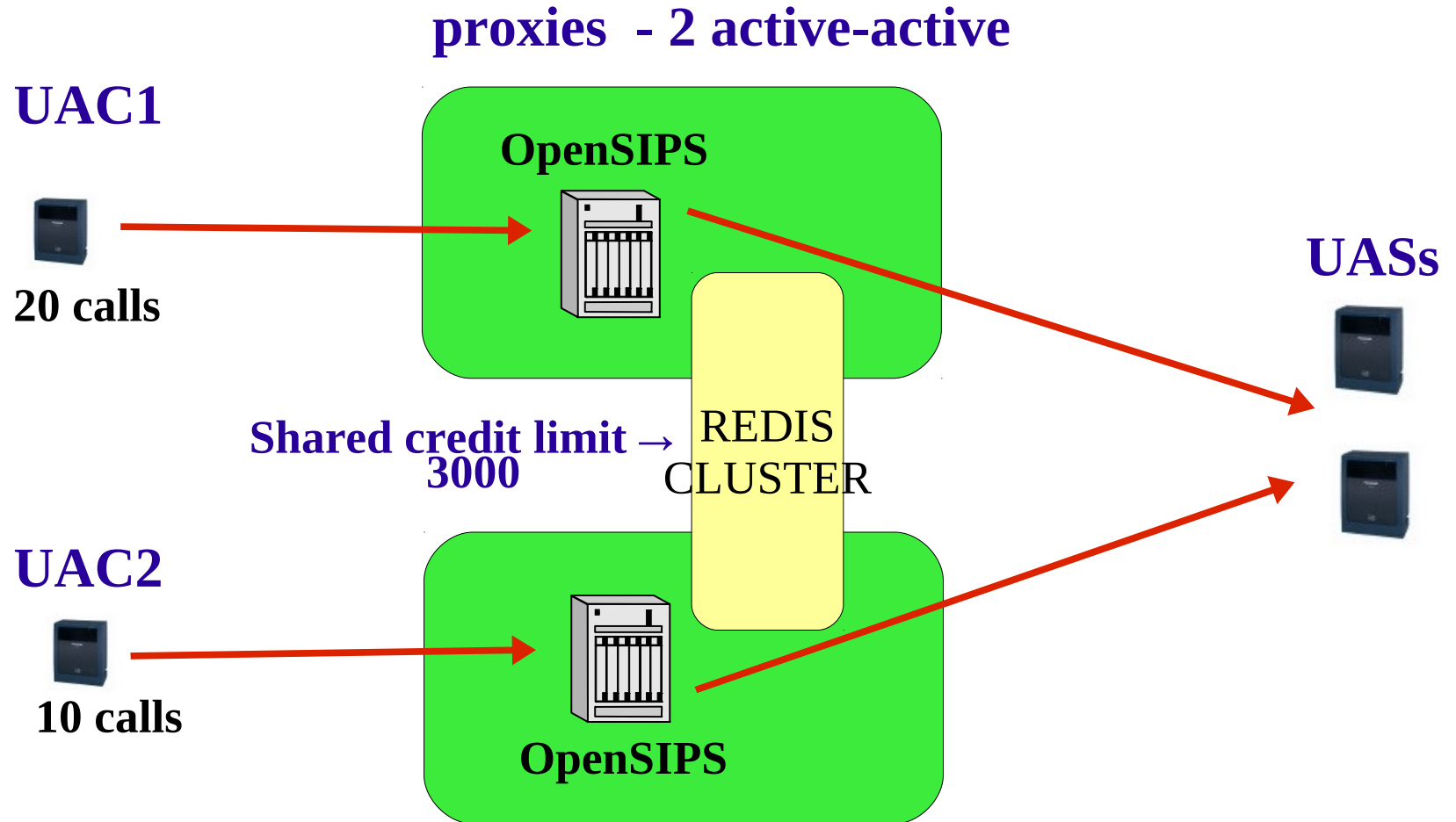
10 cps



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bogdan@opensips.org
www.opensips-solutions.com

Questions are welcome