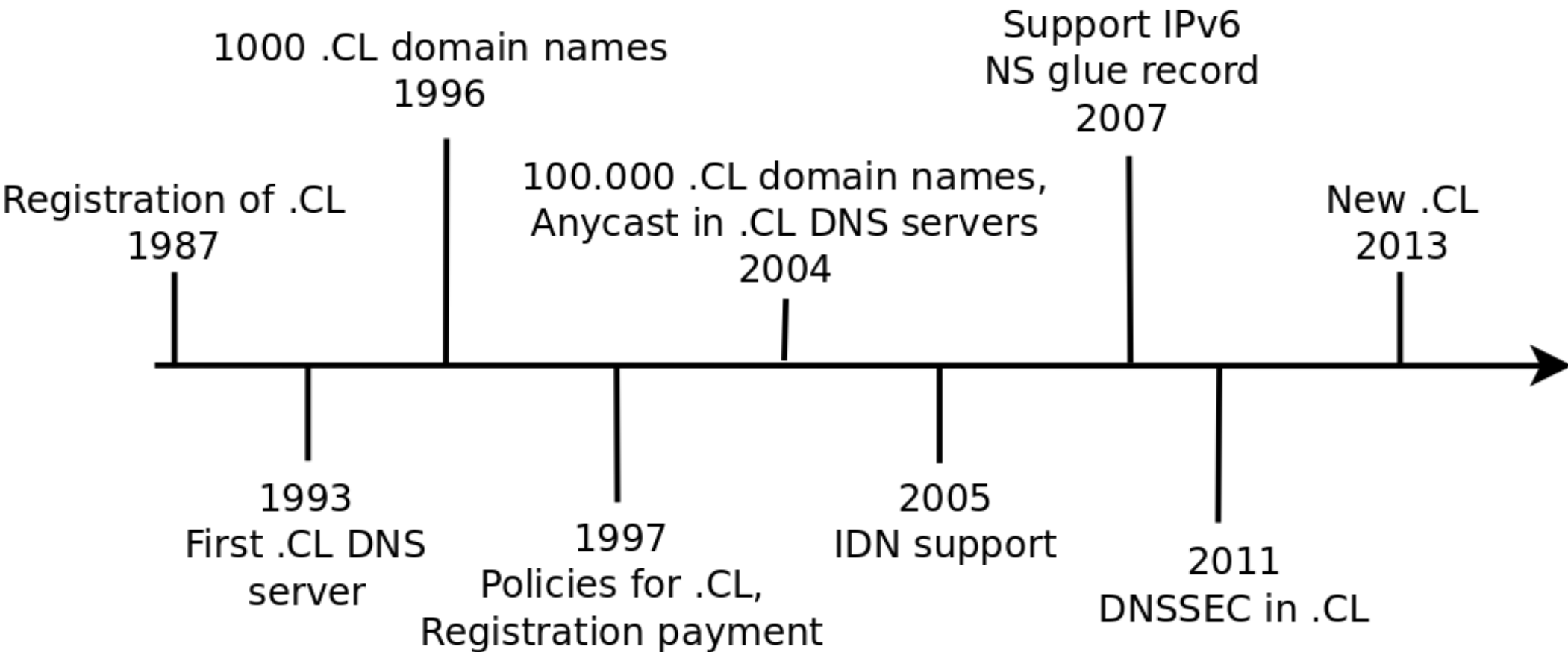


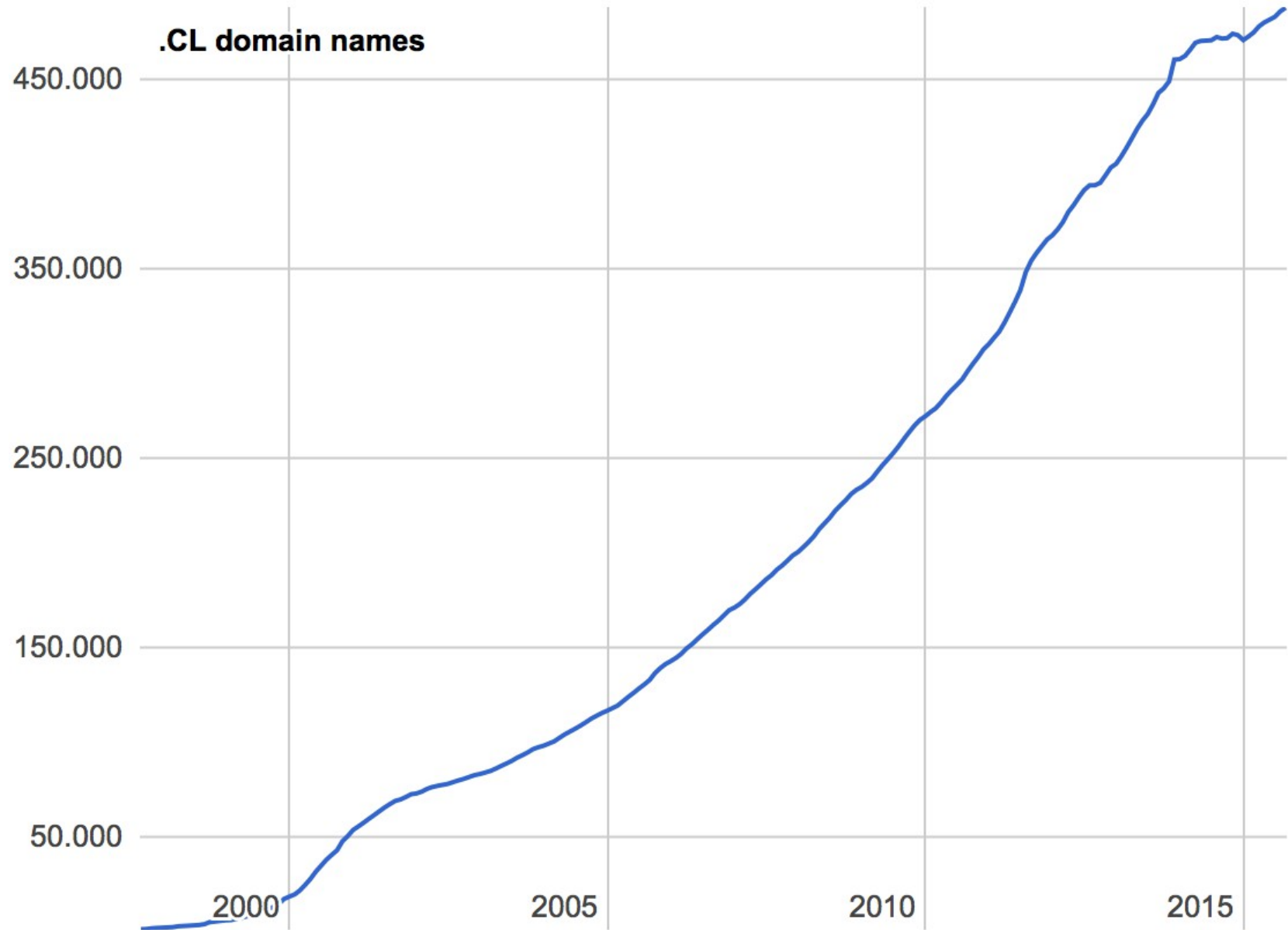
New .CL



NIC Chile



NIC Chile

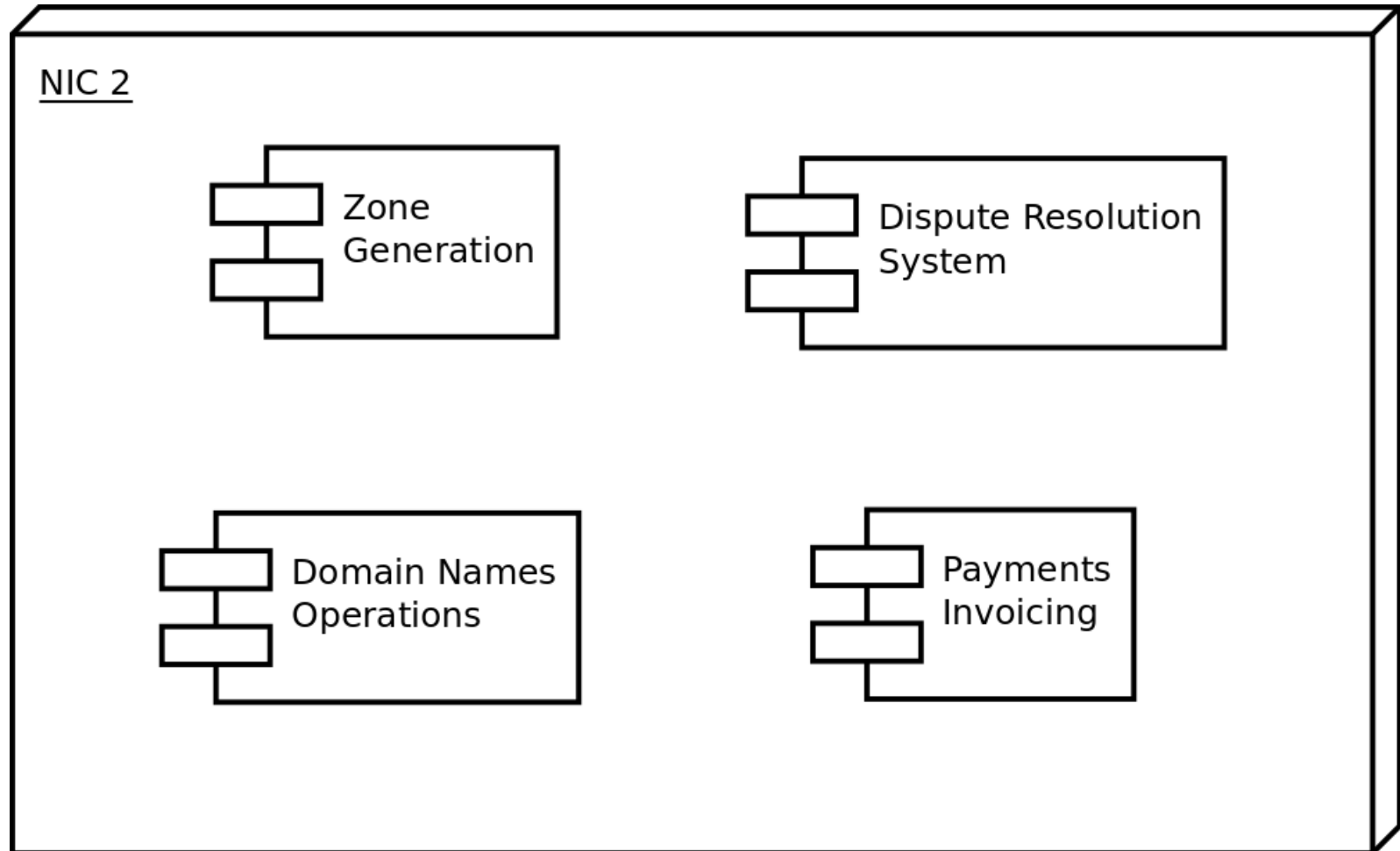


Old system: 1997 - 2012

- Monolithic and Tightly coupled systems
 - 2002: from data files to database
- Built “on-demand”
- One registrar without user accounts
- Local rules:
 - RUT (National ID number), Comuna (district or prefecture)
- Technology tools:
 - Perl (CGI, shell scripts, cron), MySQL, Apache



Old System

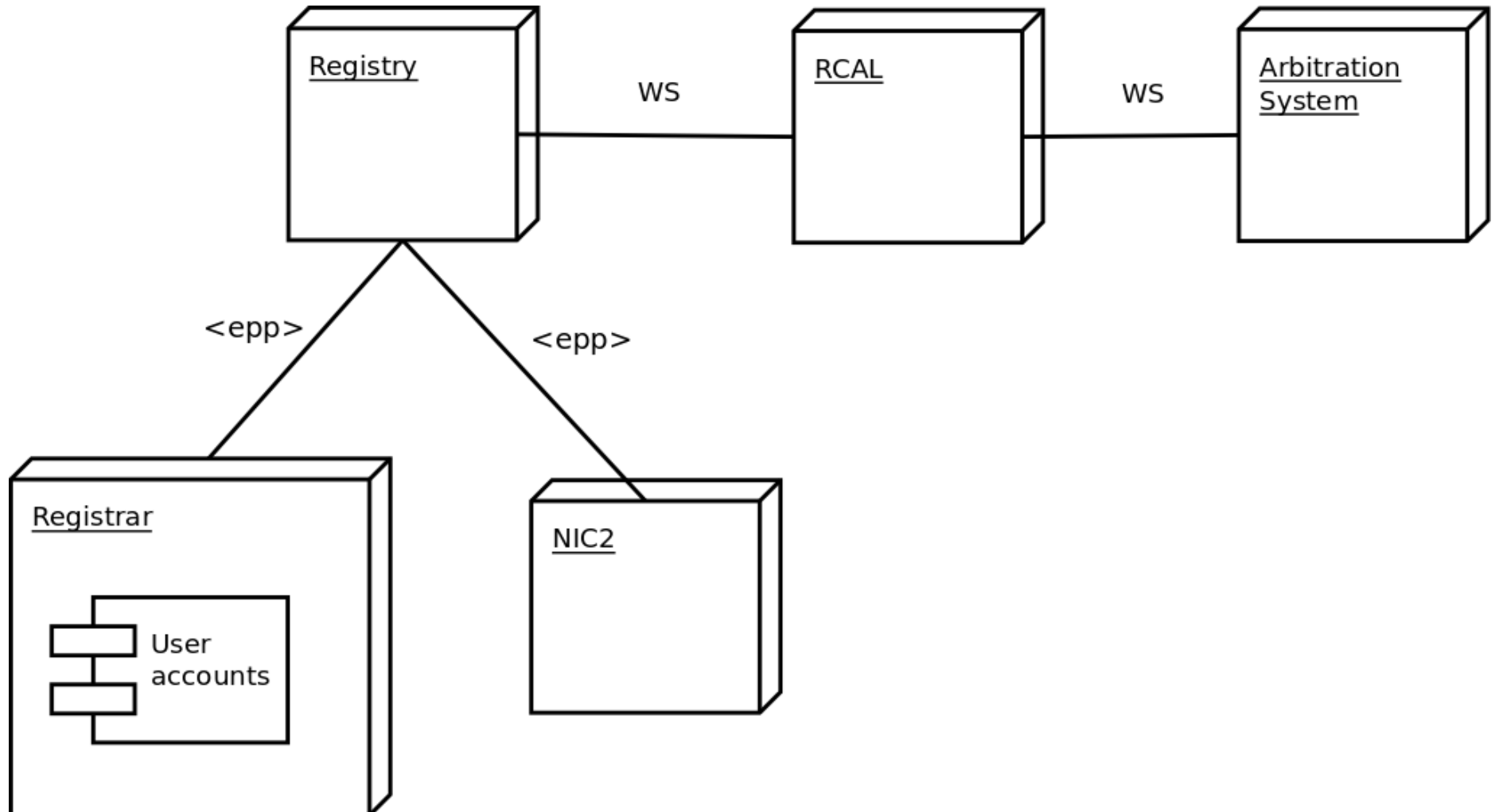


New .CL

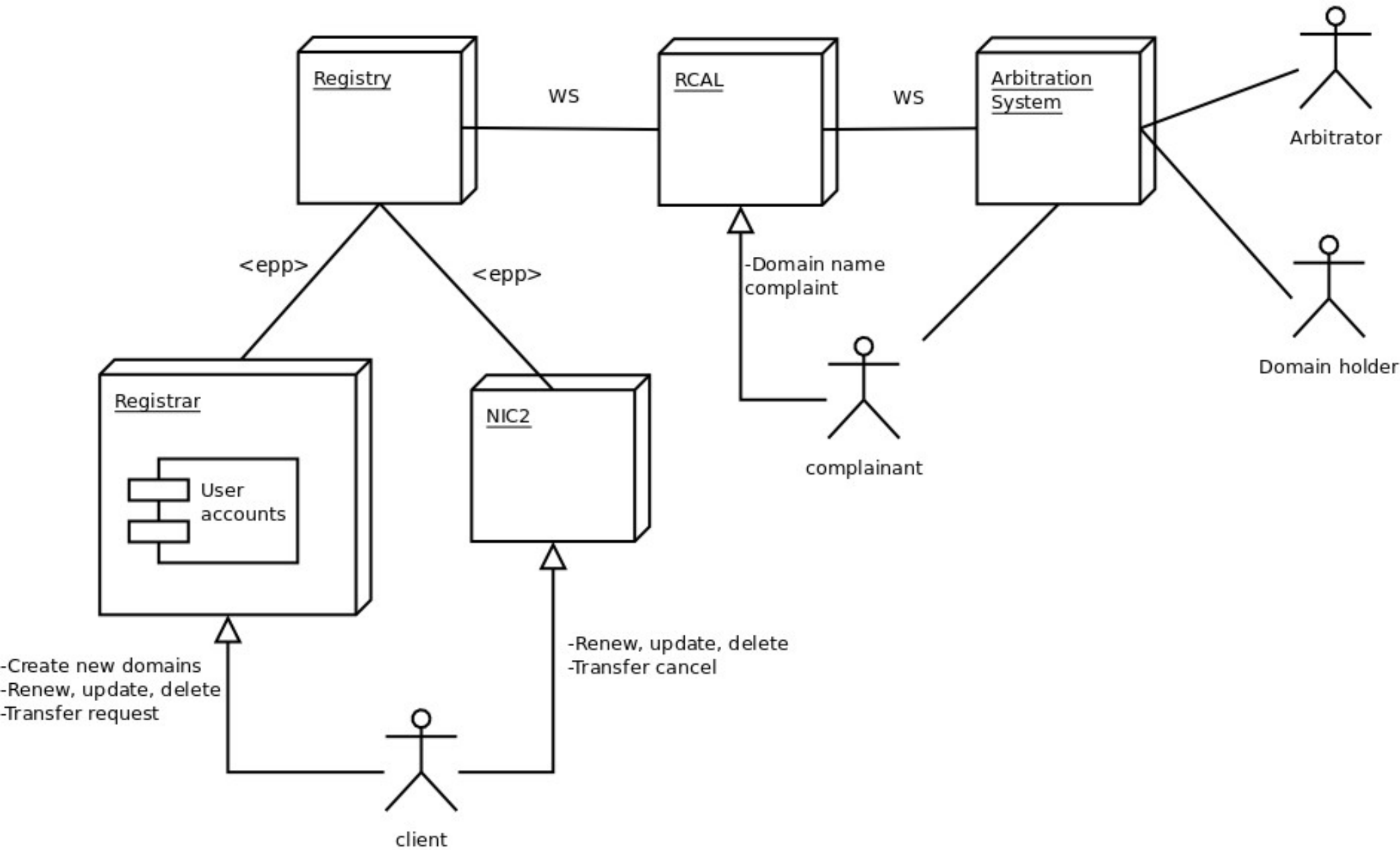
- Main Goals
 - User accounts
 - Registry – Registrar model
 - Scalability (new architecture)
 - Online Dispute Resolution System
 - Transfer domain names from old system to new system
 - Stop registration in the old system
 - New website



New .CL: model, protocols



New .CL: model, users

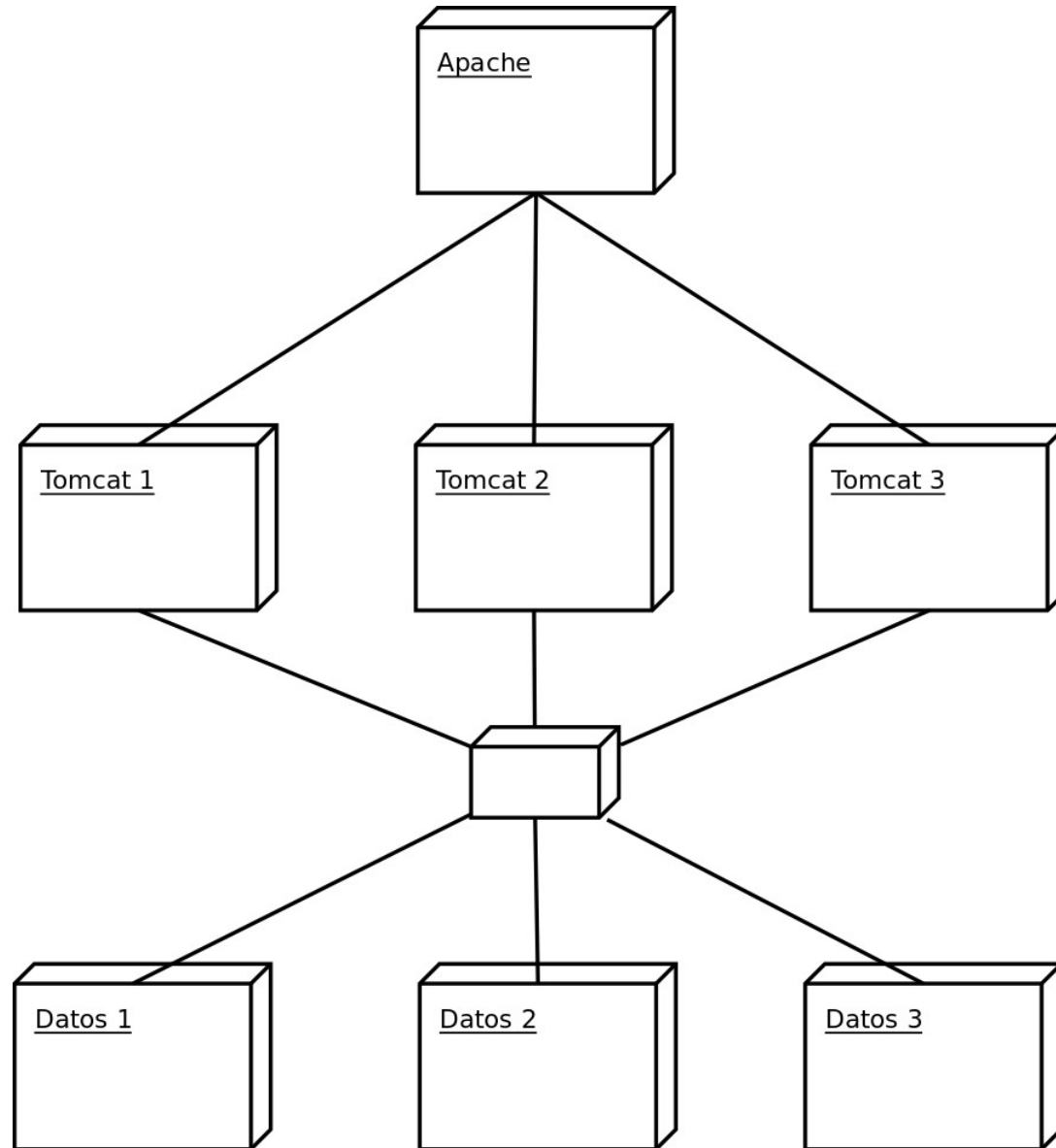


New .CL: technology

- Web applications:
 - Java: Spring and Struts Frameworks, HTML5
- Scheduled tasks:
 - Java, Perl, Python
- Database: Percona server
- Message broker: Activemq
- Web Server: Apache
- Web App Server: Tomcat



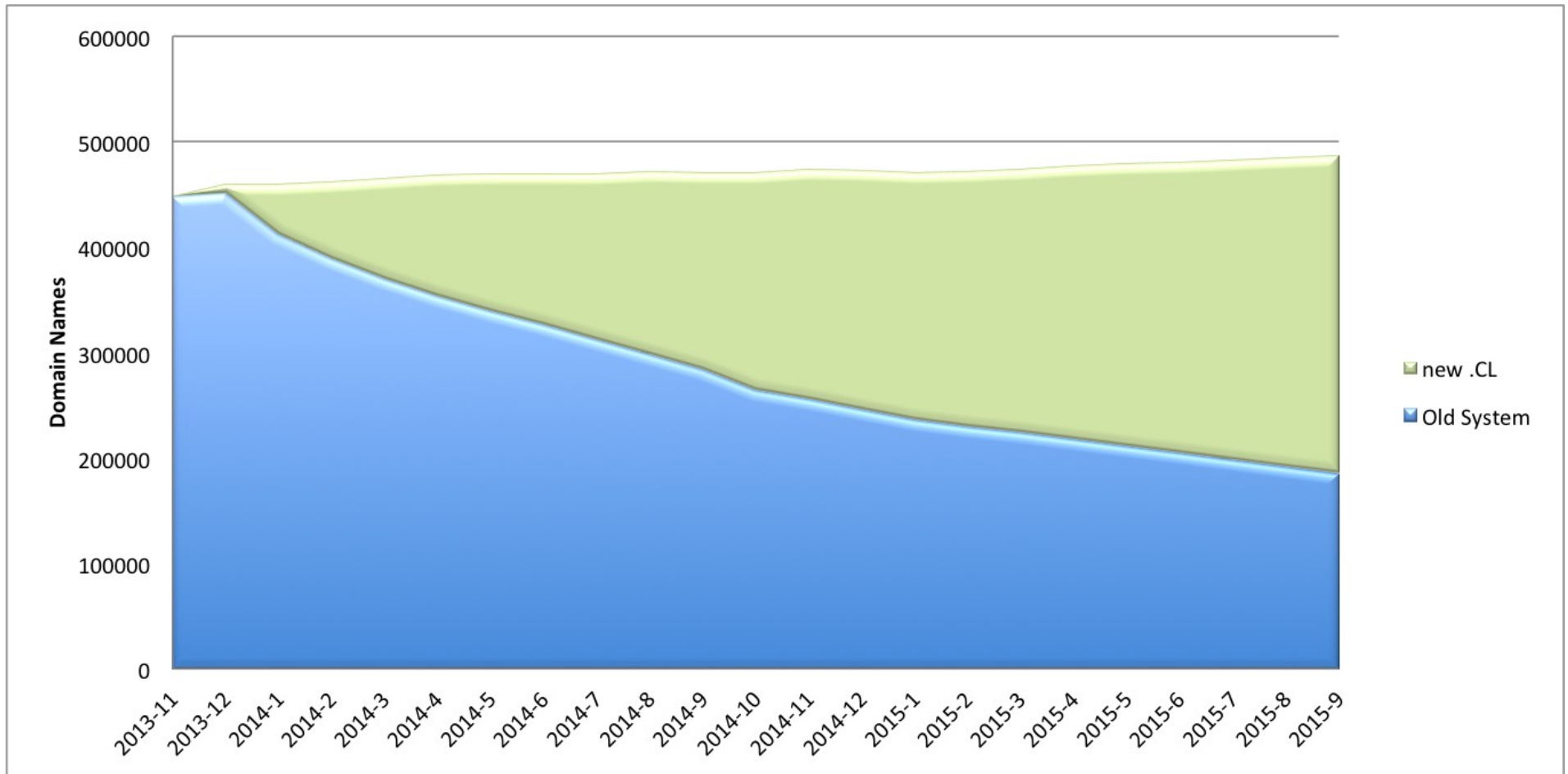
New .CL: servers architecture



Did it work?



Domain Names: where are they?



Old system: 186.120

New .CL: 301.462

Why did we do it on our own?

Reason #1

External tools need a lot of customization:

- More than 400.000 domains working with .CL policies: RUT, Comuna, Local Arbitration System, Payment/Invoicing System, internal bureaucracy, etc



Why did we do it on our own?

Reason #2

Requirements evolve, currently:

- More than 209.000 lines of code in 15 new systems
- More than 350 new installs (only main systems)



Why did we do it on our own?

Reason #3

We have experienced engineers:

- developers, sysadmin, network admins, DNS admin



Lessons learned

- Coordination: this is an organization change
 - Direct line to customer service and other areas: legal, administrative, payments, invoicing
- Use the right technology for the right task
- If your pentest was OK the first time, don't trust it!
- Divide and conquer
 - Separate components and responsibilities
- It is useful to carry out stress tests and usability test



Thank you!

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