CI contributions from Nokia Bell Labs

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- 26-06-2019

Nokia (Bell Labs) ❤ OAI

- Nokia BL is an early supporter of OAI via
  - Any kind of collaborations and partnerships
  - Now Nokia is strategic partner of OSA
    - Our #1 priorities are
      - Modularity
        - replace pre-processor by ours in L2
        - Replace decoders by H/W accelerators
      - Code quality
        - Discipline is a big problem of OAI
  - And we are commiting
- RAN only
  - Nokia Bell Labs CN binary is full featured and partners may obtain licences to use it (like e.g. Orange, EURECOM)

Our Nokia Bell Labs OAI test lab

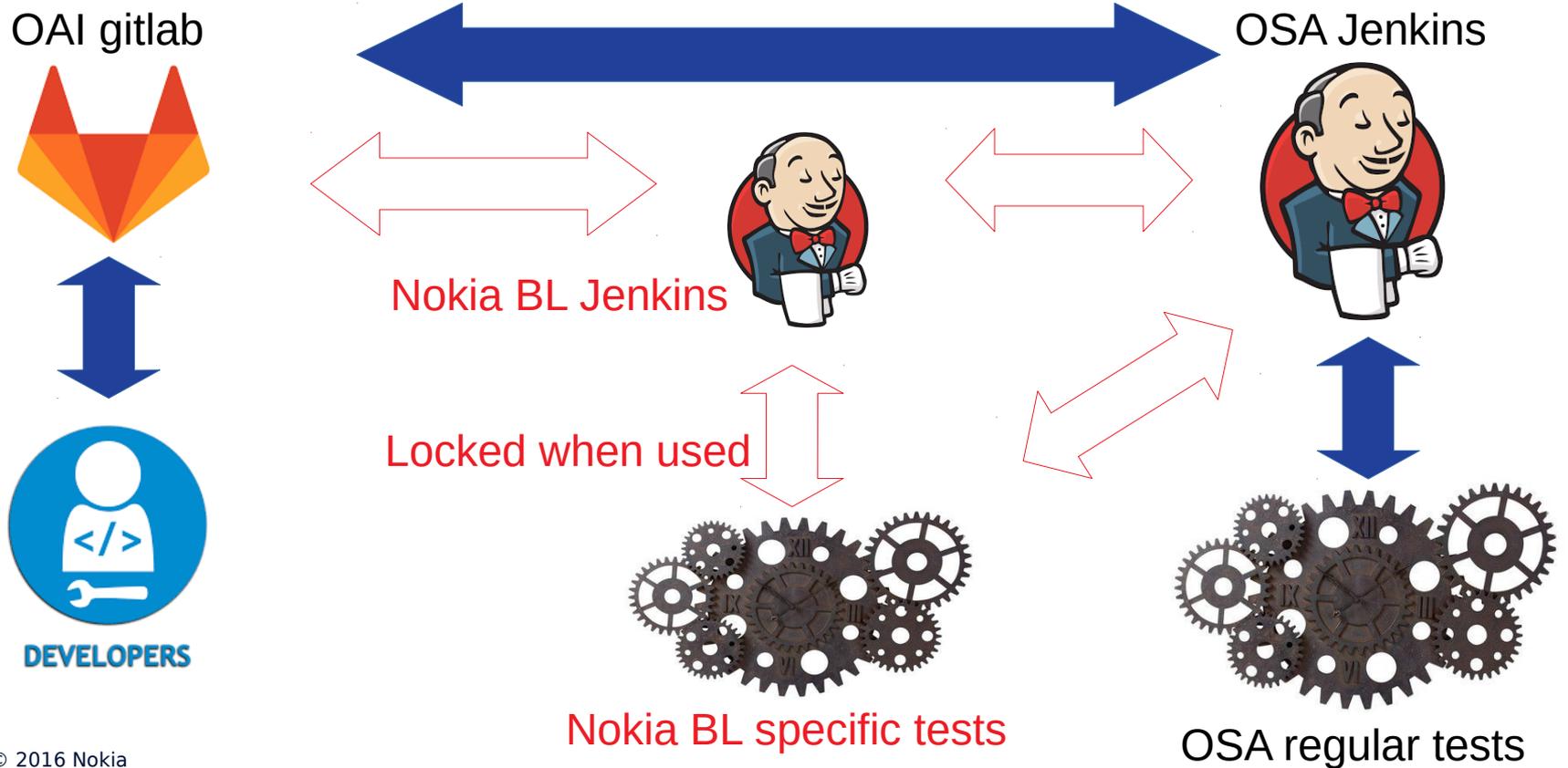Qualcomm Test UE

AIR

OAI gNB

Nokia Bell Labs S/W Core

OAI UEs

N

X

B

N

X

B

S1

ETHERNET
Using simulators

NOKIA Bell Labs

Nokia Bell Labs contributions to CI build simulators and tests

- What was the objectives?
  - Reflect into CI simplifications we did in the oai build scripts: now two builds variants could do the job
  - Be able to easily introduce new variants and new variant options to CI pipeline
  - Introduce new variant options to be able to run tests using an external EPC, to choose the OS and OS
  - release to run the test.

- What we did
  - Modifications mainly in oai-ci-vm-too bash script
  - Now you can easily add a new variant and variant options, as described in the oai wiki

NOKIA Bell Labs

Next Step: Integration with OSA infras

OAI gitlab

OSA Jenkins

Nokia BL Jenkins

Locked when used

Nokia BL specific tests

OSA regular tests

DEVELOPERS

Nokia Bell Labs next contributions to CI build simulators and tests

- Next steps for build and simulators tests

  - Work on runTestOnVm.sh script to make the same kind of improvements we did in the main script, to ease addition of a new simulator test variant

  - Add variants to test the telnet server functionality: build and run-time

  - Add tests using the telnet server: detect performance problems using the measures, add a hand-overtest using the rfsimulator.

  - Add tests using the iq player/recorder

  - Add tests for the rfsimulator, including the channel modeling option

  - Start adding functionalities to OTA tests

  - Option to use an external EPC, as for build and simulators tests

  - Tests for other RF hardware 5X310, etc?.