FROM INFRA TO E2E TESTING

Cédric Ollivier

2019/04/04

INFRASTRUCTURE VERIFICATION

FUNCTEST IN A NUTSHELL

- verify any kind of OpenStack and Kubernetes deployments (OPNFV model) including production environments
- conform with upstream rules (OpenStack gate jobs and Kubernetes conformance tests)
- ensure that the platforms meet Network Functions
 Virtualization requirements

FUNCTEST SUITES

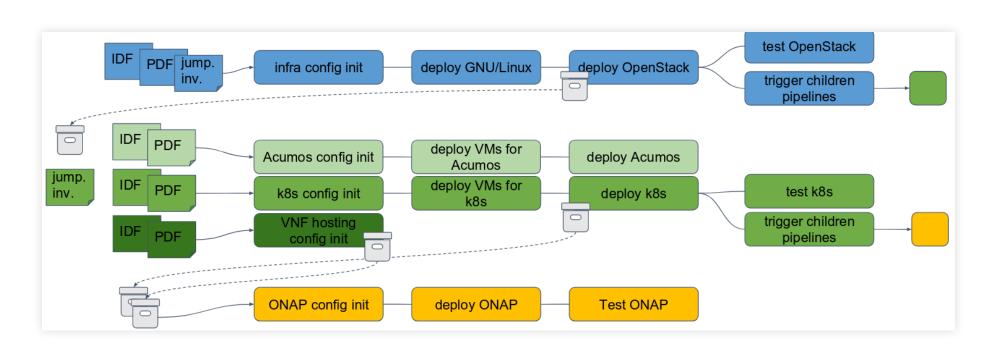
- all functional tests as defined by the upstream communities (e.g. Tempest, neutron-tempest-api, Barbican, Patrole...)
- upstream API and dataplane benchmarking tools (Rally, Vmtp and Shaker)
- Virtual Network Function deployments and testing (vIMS, vRouter and vEPC)

XTESTING IN A NUTSHELL

- allow the developer to work only on the test suites without diving into CI/CD integration
- simplify test integration in a complete LFN-based CI/CD toolchain (e.g. Jenkins, Testing Containers, Test API and dashboard)
- allow a proper design and verify multiple components in the same CI/CD toolchain (OpenStack, Kubernetes, ONAP, etc.)

Easy to use and very useful for any CI/CD toochain

CHAINED CI



END2END NETWORK SERVICES TESTING

NETWORK AUTOMATION JOURNEY

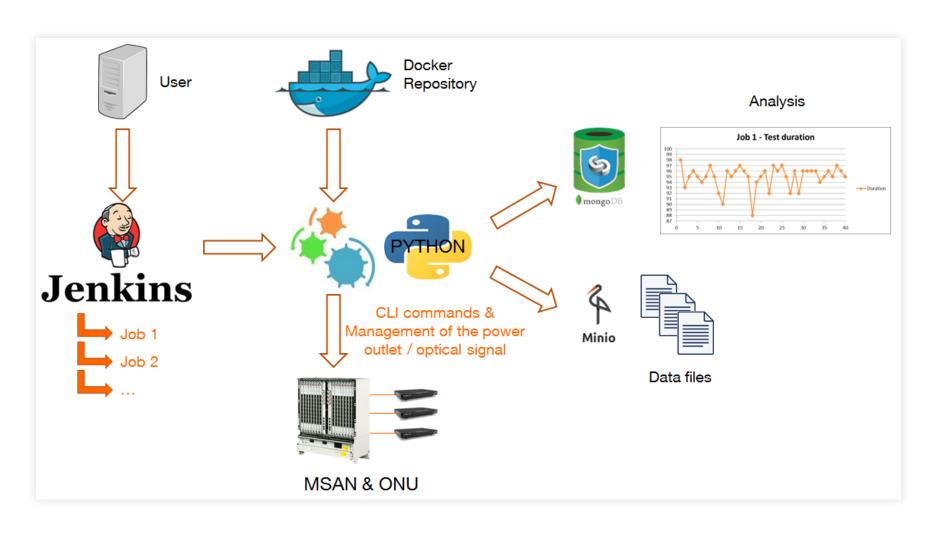
- test network equipment and software including the Data-Center infrastructure
- improve method and validation process to shorten the TTM
- need tools and methodology to quickly disseminate CI/CD culture and assemble sparsed testcases verifying network services

Why not leveraging on existing opensource tools such as Xtesting?

DEPLOY YOUR OWN TESTING TOOLCHAIN

- deploy anywhere the full OPNFV CI/CD toolchain in a few commands
- could be instantiated for testing services out of the infrastructure domain
- offer all Xtesting-based fonctional jobs (e.g. Functest) to the endusers

TESTING FTTH EQUIPMENT



DEMO

- describe the testcase execution
- build and publish your container
- list your test in the toolchain description
- deploy your own toolchain in a few command

https://wiki.opnfv.org/pages/viewpage.action? pageId=32015004

CONCLUSION

CONCLUSION

- Xtesting is a key helper from first tests to full end2end service testing
- And we are still pushing the limits:
 - allow verifying production Infrastructure and then break the classical preproduction/production model
 - support Raspberry Pi

Upstream first! Try it, and you will love it!

THANK YOU