Xprojects Collaboration on Integration

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ONAP DDF, Nozay, 8th of January 2019
Working in integration project is not easy

Lots of projects
Lots of subprojects
Lots of dependencies
Lots of interfaces
Lots of tools
Lots of formats
Lots of scenarios/versions/

« L’enfer, c’est les autres »
Testing ONAP, only ONAP?

- VNF i
- PNF j
- ONAP
- Tooling
- Kubernetes
- OpenStack
- Ceph
- Bare metal
Testing ONAP, only ONAP?

Who shall be blamed if there is an issue….troubleshooting is not trivial and time consuming

How can we be sure that an ONAP issue is due to ONAP…

… without reinventing the wheel?

How can we isolate the infrastructure related errors more quickly?
How to face such challenges?

### CI/CD
- Run the same tests on different environments
- Run the tests regularly i.e all the time... (not only during the release period)
- Share the results and report the issue in real time
- Focus on really automatable test cases (i.e. not a chaining of scripts with manual operations)

### Leverage existing projects
- All the stack components can be tested through upstream test projects, ensure that the infrastructure is correct regularly before running ONAP tests
- Stop testing ONAP if infrastructure problems are detected

### Re-use existing frameworks
- Do not reinvent the wheel
- Try to keep consistency in the way tests are executed and processed (reuse xtesting framework)
We are not alone...in LFN...and beyond
CI/CD can be managed to bring trust

Automate, and chain pipelines

At installation then weekly
- test OpenStack
- trigger children pipelines

At installation then weekly
- test k8s
- trigger children pipelines

daily
- Test ONAP
Infra testing prior to ONAP tests: OpenStack Weekly tests

### Functest Results

**OpenLab: OpenStack Monitoring**

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Last Check</th>
<th>Trend</th>
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<tbody>
<tr>
<td>healthcheck</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>smoke</td>
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<td>vnf</td>
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</tr>
</tbody>
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- **Developed by**: [OpenStack](#)
- **Integrated by**: [ONAP](#)
Infr testing prior to ONAP tests: Kubernetes Weekly tests

healthcheck
2018-12-17 20:34

100.0%
LAST CHECK

Full results

k8s_smoke

Developed by

Integrated by

THE LINUX FOUNDATION
More labs, more tests, more trust

Always interesting to have several sources

Avoid manual configurations (done once on a lab on which a limited number of people have access) and force real automation. Tests must work automatically on all the labs.

- Increase trustability (possible to see the influence of the installation/version/hardware/…), could be used in the future for gating

- Pharos lab from OPNFV could be leverage with an installation of ONAP as an OPNFV scenario
  - OPNFV infra installation needed or ONAP scenario could be chained on a existing kubernetes infrastructure?
Conclusions

Integration of OPNFV functest infrastructure test suites in ONAP integration CI/CD for Dublin

Allow external CI/CD to report results on master branch to consolidate integration testing?

Discuss with OPNFV if it is possible to extend the mission of Pharos federation and include ONAP scenario?
Thank You!