Approved VVP Project Proposal: VNF Validation Program (ONAP ICE) (5/30/17)

Project Name: VNF Validation Program (ONAP ICE)

- Proposed name for the project: VNF Validation Program (ONAP ICE)
- Proposed name for the repository: vvp

Project description:

The project is to develop a validation program to provide assurance of VNF interoperability with ONAP. Obtaining a validation shall be a self-service activity and should be against a reference release of ONAP for use by the VNF provider & any other validation authority.

This project at ONAP will not operate as a Validation Authority and will create a process to identify and qualify Validation Authorities. Self-Certification may be considered as a Certification authority option.

The overall objective of the proposal is to build & foster an active community at ONAP contributing to all aspects of an *ONAP VNF Validation program*, and the key goals are:

1. Define and start to execute on a long-term strategy & goals to support and allow for a resource efficient model for VNF validation across the combined ONAP ecosystem.
2. Build & foster an active contributor community across the ONAP ecosystem to support a broad alignment & definition around the *ONAP VNF requirements & Guidelines.*
3. Introduce an efficient and seamless process to allow the community to contribute to all aspects of the validation process and platform.

It will be important as part of these deliverables to define ways for 3rd parties to carry out the validation to allow for an efficient and broad adaption. The developed processes and tools will be available for any use within the scope of the Apache 2.0 license and all changes must be contributed back the ONAP community.

Exploring possible expansions to the validation scope is an essential part of this project and especially looking to define specific steps to do so. Some immediate candidates would be to validate the integration with DCAE and/or A&AI as well introducing validation of TOSCA templates. This work by its very nature will need to be closely linked to the work with the *ONAP VNF Requirements, VNF Modeling specification* and *VNF SDK & Tooling*.

Key related projects are the VNF SDK & Tooling and VNF Requirements & Guidelines both will play important roles into defining the long-term direction for the program.

The project is intended to validate the following:

1. VNF Requirements compliance (primarily VNF on-boarding requirements in the first release)
2. VNF Operates with ONAP (including e.g. VNF Instantiation, VNF Monitoring)
3. VNF template specification

This project will also propose how to deal with:

1. revisions to the validation testing regime,
2. changes to the VNF, and
3. changes to the VNF metadata

This project will provide a process to evolve the validation criteria based on experience and as the VNF Requirements & Guidelines evolve. At each release of ONAP, the scope of functionality tested and the test coverage for VNF validation may change. Lessons learned from operational experience may generate additional VNF requirements, or lead to improved test coverage etc.

The VNF Provider is expected to maintain its VNFs resulting in multiple versions including revisions dues to metadata changes. This Project shall provide guidance as to when revalidation is recommended.

This Project will validate the VNF package integrity and provenance e.g. using signing & attestation. The exact process will be determined during the project.

This Project will validate VNF operation on some defined infrastructure (cloud) resources & environment. These tests can also include verification of the VNF compatibility with specific NVFI envs, e.g. public/private clouds and SP-specific NFVI deployments or standard reference NFVI platforms such as developed by OPNFV centered upon major commercial OpenStack distributions. The scope of such testing will be determined during the project.

This Project will maintain the authoritative set of tests and test procedures for Validations of VNFs. This project shall develop the tests and test procedures traceable to the VNF Requirements & Guidelines.

This Project shall report the test coverage of the VNF Certification program against the VNF Requirements and the ONAP. Each VNF requirement should be checked via a test to enable automation 'certification".

The Project shall report the results of the validation test suite on a given VNF to the person invoking the validation test.

The VNF Validation testing shall be as automated as possible. This Project shall develop that automation framework for validation testing.

Scope:

The scope for this project is to establish an *ONAP VNF Validation Program* by the end of 2017 allowing anyone to obtain an *ONAP Compatible* label for their VNFs. The key deliverables currently identified for this project to be completed by the end of 2017 are:

1. Define & establish an overall governance model for the program to properly continuously define a scalable, and flexible model for validating
2. Define & establish a resource-efficient model for VNF providers and other parties to acquire an *ONAP Compatible label.*
3. Define a roadmap for the expansion of the program to include additional validation scope and dependencies to other projects inside ONAP

Note: The focus for the OpenStack base

Architecture Alignment:

- How does this project fit into the rest of the ONAP Architecture?
    - The VNF Validation Program will utilize the architecture to validate VNFs against it.
- What other ONAP projects does this project depend on?
    - This project depends on SDC, VNF Validation Program, and VNF Requirements
- How does this align with external standards/specifications?
- Are there dependencies with other open source projects?
    - OpenStack

ONAP VVP Governance-Nov 9-2017.pptx

Resources:

- Primary Contact Person: Erik Sundelof es4410@att.com
- Names, gerrit IDs, and company affiliations of the committers
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    - Don Levy, AT&T
    - Amy Zwarico, AT&T
    - Maopeng Zhang, ZTE
    - Hui Deng, Huawei
    - Michael Brenner, Cloudify
    - Moshe Hoadley, Amdocs
- Project Roles (include RACI chart, if applicable)

Other Information:

- link to seed code (if applicable)
- Vendor Neutral
- if the proposal is coming from an existing proprietary codebase, have you ensured that all proprietary trademarks, logos, product names, etc., have been removed?
- Meets Board policy (including IPR)

Use the above information to create a key project facts section on your project page

Key Project Facts

Project Name:

- JIRA project name: vvp
- JIRA project prefix: vvp

Repo name:

- org.onap.vvp/devkit <deprecated and locked in the Dublin release>
- org.onap.vvp/ansible-ice-bootstrap <deprecated and locked in the Dublin release>
- org.onap.vvp/portal <deprecated and locked in the Dublin release>
- org.onap.vvp/engagementmgr <deprecated and locked in the Dublin release>
- org.onap.vvp/cms <deprecated and locked in the Dublin release>

- org.onap.vvp/jenkins <deprecated and locked in the Dublin release>
- org.onap.vvp/haproxy <deprecated and locked in the Dublin release>
- org.onap.vvp/postgresql <deprecated and locked in the Dublin release>
- org.onap.vvp/gitlab <deprecated and locked in the Dublin release>
- org.onap.vvp/jeeves <deprecated and locked in the Dublin release>
- org.onap.vvp/test-engine <deprecated and locked in the Dublin release>
- org.onap.vvp/validation-scripts
- org.onap.vvp/documentation
- org.onap.vvp/image-scanner <deprecated and locked in the Dublin release>
- org.onap.vvp/regression-tests <added in Dublin release>

Lifecycle State: incubation
Primary Contact: Steven Wright
Project Lead: Steven Wright
mailing list tag #vvp

*Link to TSC approval:
Link to approval of additional submitters: