# SDV

Software Delivery Verification(SDV)/Fu Qiao

Title	Software Delivery Verification tool development and testing
Status	COMPLETED
Difficulty	LOW

Description

The validation of post-software deployment, conducted in two parts: Part 1) Validation of the installation manifests will be performed against the requirements (probably defined in a machine-readable format in PDF 2.0) and the software repositories; Part 2) Validation (comparison) of actual installation vs. the expected installation through log, directory, components, configuration, and software stack. Apart from ensuring that the requirements are met, this validation helps in minimizing/eliminating any deployment errors, drives test-automation, and checks for consistency to achieve efficient automation. The below picture summarizes the scope (in red dashed rectangle) of the software validation.
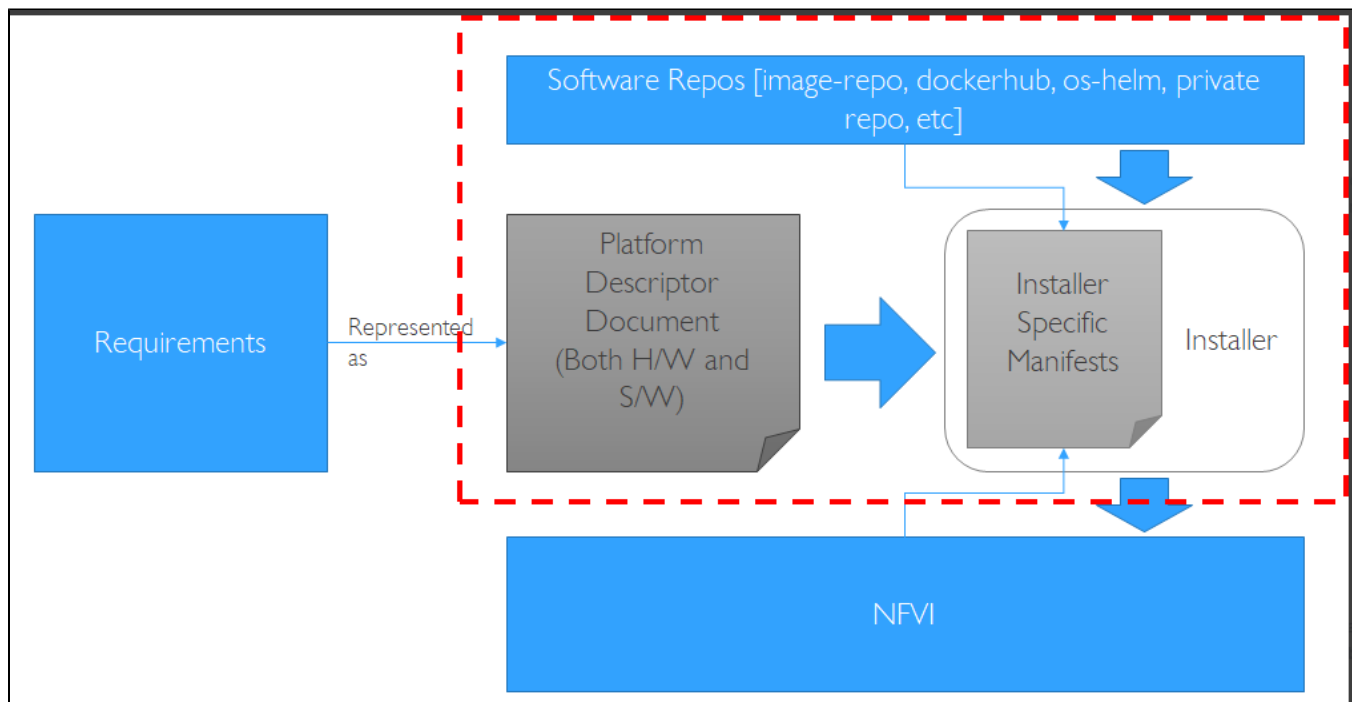
Additional Information

More details can be found in the following links

https://wiki.opnfv.org/display/CIRV/Software+Delivery+Validation

https://github.com/cntt-n/CNTT/blob/master/doc/ref_impl/cntt-ri/chapters/chapter03.md

Learning Objectives

Have a comprehensive understanding of the CNTT community, especially Reference Implementation and Reference Compliance

Hands-on opportunity for software tool development, testing and verification

Have a comprehensive understanding of software deployment tools (e.g. Airship) and related hardware provision interface, e.g. IPMI, Redfish

Have opportunity to work on NFV cloud, Intel labs, OpenStack software deployment, and Manifests which define installation software packages, options, and configurations

Expected Outcome

1. SDV tool-set framework

2. Enhance and Expand SDV prototype

3. Tool-set documents

Relation to LF Networking

Related to OPNFV and CNTT, especially to the CIRV project in OPNFV, and RI and RC Work-streams (WS) in CNTT.

Education Level

Bachelor's and/or Master's degree in Computer Science, Software Engineering or related technical discipline

Skills

- Familiar with Python programming.
- Basic understanding of one of the code versioning tools like Git.
- Strong written and verbal communication and interpersonal skills in English.
- Have basic knowledge of x86 servers and network devices

Future plans

The tool(s) and test case(s) will be used in CNTT RI/RC testing, in OPNFV Pharos lab testing, and potentially by multiple operators in their NFV Software delivery testing.

Preferred Hours and Length of Internship

Part-Time Intern: 20 hours per week for 24 consecutive weeks.

Mentor(s) Names and Contact Info

Sridhar Rao Sridhar.Rao@spirent.com

Fu Qiao fuqiao@chinamobile.com