

HDV

Hardware delivery verification(HDV)/Fu Qiao

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

Description

Hardware is the base for NFV software deployment. However, it is still difficult to prepare and verify hardware in an automatic way. Based on several Operator's field trial experiences, there is a desire to verify the hardware underlying the stack / infrastructure, with this processing being automated. Initially, this verification would be carried out in labs responsible for the performance of the compliance testing, especially in the future cases examining VNF performance, where hardware will have direct impact. However, the tooling should also apply directly to larger deployments, verifying the hardware, settings, network wiring, etc., which will save valuable time for operators and users in standing up infrastructure.

Additional Information

More details can be found in the following links

<https://wiki.opnfv.org/display/CIRV/Hardware+Delivery+Verification>

https://github.com/cnnt-n/CNTT/blob/master/doc/ref_impl/cnnt-ri/chapters/chapter05.md

<https://wiki.lfnetworking.org/pages/viewpage.action?pageId=27525908>

Learning Objectives

Have a comprehensive understanding of the CNTT community, especially Reference implementation and reference compliance

Hand on opportunity for hardware level testing and verification

Have a comprehensive understanding of hardware provision tools, including ironic and etc., and hardware provision interface, e.g. IPMI, redfish

Have opportunity to work on NFV cloud of more than 1000 servers

Expected Outcome

1. HDV toolset framework
2. HDV prototype
3. toolset documents

Relation to LF Networking

Related to OPNFV and CNTT, especially to the CIRV project in OPNFV, and RI 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 test cases will be used in CNTT RC testing, in OPNFV pharos lab testing. And would possibly used by multiple operators in their NFV Hardware 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

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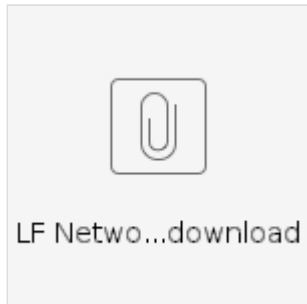
Mentee Name and Contact Info

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Project Results

Project gerrit link - <https://gerrit.opnfv.org/gerrit/admin/repos/cirv-hdv>

Lightening Talk Recording:



Final Report



HDV Hardware Validation.pdf