Original OPNFV Project Definition Materials

The following is the original scope and mission of the Pharos project, as defined within OPNFV.

Scope (from 2014)

Three work threads are proposed for developing and operating the infrastructure and this work will be undertaken by the Test and Performance sub-group ...

Test-bed governance and policy

- First, this project is to produce a common web interface to community test-beds that will be hosted by different companies. This web portal will be accessible from OPNFV wiki as the common entry point.
- Web interface should document information about the infrastructures and setups that is common across the various implementations as well as individual variations, including ...
    - Description of systems (detailed specifications of available compute nodes), test-tools, network topologies, etc.
      Status of the test-bed (including scheduled projects) and reservation process
    - User-guides for accessing the test-bed remotely and getting support
    - Governance and usage policies (under community control and at discretion of hosting company ... e.g. prioritization of projects, escalation process, ...)
    - Provide ways for making results of test campaigns on the different testbeds available for sharing and encouraging community involvement through e.g. comments on results and suggestions for further testing.

Reference platform hardware and software definition

- In order for the testbeds have some commonality and portability (to upper layer software), we will define a reference hardware configuration. We will also initially define a "bootstrap" software configuration to get started (see Project: Bootstrap/Get started! project), and eventually migrate to use OPNFV release(s) coming out of Continuous Integration (CI) project.
- The basic hardware components of the initial version of the testbeds will likely include (only for illustration of scope): x86 servers of relatively recent architectures, relatively high throughput PCIe, 1G and 10G Ethernet Adaptors, local storage, and 1/10G Ethernet switches.
- The basic software components of the bootstrap version may include (only for illustration of scope): Linux OS, Qemu/KVM, OpenStack, OpenVSwitch.

Test-bed tooling

- This project should include a minimum "smoke test" that can be run regularly to verify basic operational status of the test environment and report this status using the web interface.
- An objectives of the test-bed is to provide a repository for the community to easily store and share test artifacts ... including test workloads (e.g. VNFs), test scripts (e.g. for configuring test-harness components or device under test), traffic profiles, test results, etc.)

Out of scope:

The following projects are envisaged to be executed using the proposed test-bed infrastructure, however are not considered integral to this proposal (these will be submitted as a separate project proposal)

Platform performance benchmarking / characterization ... bottoms up approach to understanding performance
VNF deployment testing (NFV use cases) ... tops down approach with focus on functionality and VNF life-cycle management
Carrier Grade Requirements ... class of tests that focus on operational requirements for a Telco environment

Description (from 2020)

The Pharos Project deals with developing an OPNFV lab infrastructure that is geographically and technically diverse. This will greatly assist in developing a highly robust and stable OPNFV platform. Community labs are hosted by individual companies and there is also an OPNFV lab hosted by the Linux Foundation that has controlled access for key development and production activities. The Pharos Specification defines a "compliant" deployment and test environment. Pharos is responsible for defining lab capabilities, developing management/usage policies and process; and a support plan for reliable access to project and release resources. Community labs are provided as a service by companies and are not controlled by Pharos however our goal is to provide easy visibility of all lab capabilities and their usage at all-times.

PDF (Pod Descriptor File)

https://wiki.opnfv.org/download/attachments/6816289/OPNFV_PDF_v1.0_28_Feb_2018.pptx?api=v2

https://git.opnfv.org/pharos/tree/config/pdf/pod1.yaml