OPNFV Verified

NFVI platform verification
OPNFV Verified Program

• OPNFV Verified Program confirms that a product exposes
  – key APIs,
  – behaviors, and
  – characteristics
  of a certain OPNFV release

• Main objective: reduce VNF onboarding cost
  – Establish industry-accepted technical baseline for VNF vendors
OPNFV Test Ecosystem

OPNFV Testing Community

- Database Test Results
  - dovelabs
  - OPNFV Compliance Verification
- NFVI, VM, MANO-APIs & Functions
  - funtest
- Feature Projects
  - yardstick
- Performance Testing
  - NFVI & VNF-PPs
  - Plugin
  - NFVI Data-Path Performance
  - NFVI Storage Performance
  - Benchmarking as a Service
  - Staging Manager & Test Analysis

Test Tiers

- In Service
- Stress
- VNF
- Performance
- Components
- Features
- Smoke Test
- Health Check

Pharos LF & Community Lab Infrastructure

- Dev Resources
- CI Integration Resources
- CI Test Resources
Test Scope

Mandatory test cases

• OpenStack basic API tests (205 tests)
• Basic layer 2 packet forwarding (2 tests)
• OpenStack control service high-availability (8 tests)

Optional test cases

• IPv6 tenant networks (25 tests)
• BGPVPNs (4 tests)
• Fundamental VIM capabilities (30 tests)

Future test case candidates

• Neutron Trunk ports
• OpenStack Tempest smoke tests
• BGPVPN Tempest tests
• SDN Controller high-availability
• VNF lifecycle management
• …

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Potential Future Scope
Dovetail Architecture

Dovetail

- instantiation
- configuration
- test case execution
- result collection

OPNFV Test Tools

- Functest
- Yardstick
- Bottlenecks

- API tests
- OS level HA tests

System under test: VIM + NFVI

controller nodes, compute nodes, SDN controller
Certification Workflow

1. Submission of participation form
2. Testing
3. Submission of results
4. Notification of reviewers
5. Review of test results
6. Grant of use of program marks
References

- OPNFV Verified Portal
  - https://verified.opnfv.org

- Dovetail project
  - https://wiki.opnfv.org/display/dovetail

- OPNFV
  - https://www.opnfv.org/