LINUX FOUNDATION
COLLABORATIVE PROJECTS

Dovetail & OVP

Scope, Architecture, and Workflows

OPNFV Verified Program (OVP)

- OVP confirms that a commercial VIM/NFVI exposes the same
  - key APIs,
  - behaviors, and
  - characteristics

  as the OPNFV reference platform

- Main objective: reduce VIM selection and VNF onboarding cost
  - Establish industry-accepted technical baseline
  - Simplify RFXs

- Main components of OVP
  - Dovetail: automated test and reporting tool leveraging OPNFV and upstream test tools
  - OVP web portal: upload, display, and review results

Scope of OVP

OPNFV Verified 2018.01

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)

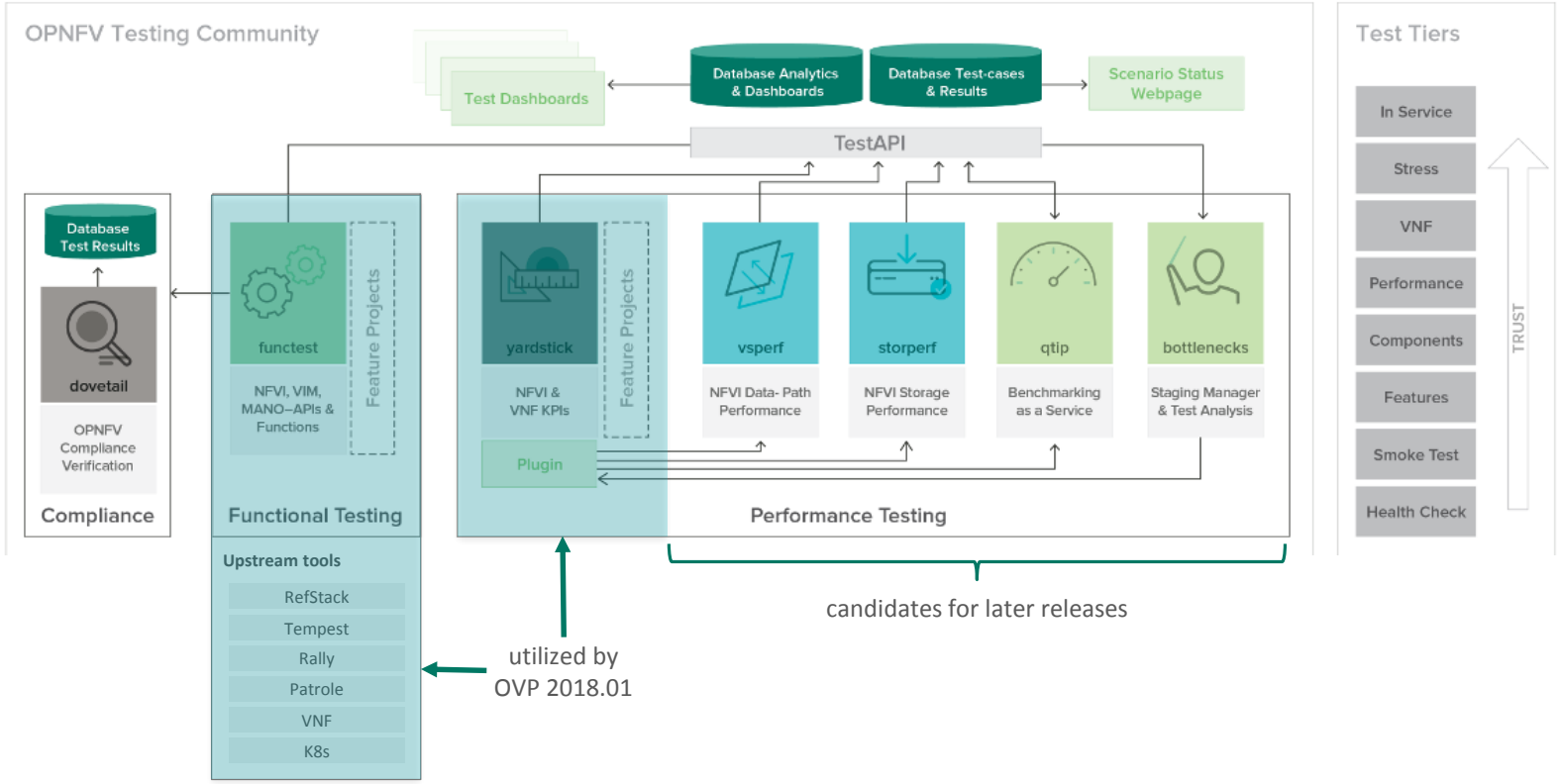
Potential Future Scope

Future test case candidates

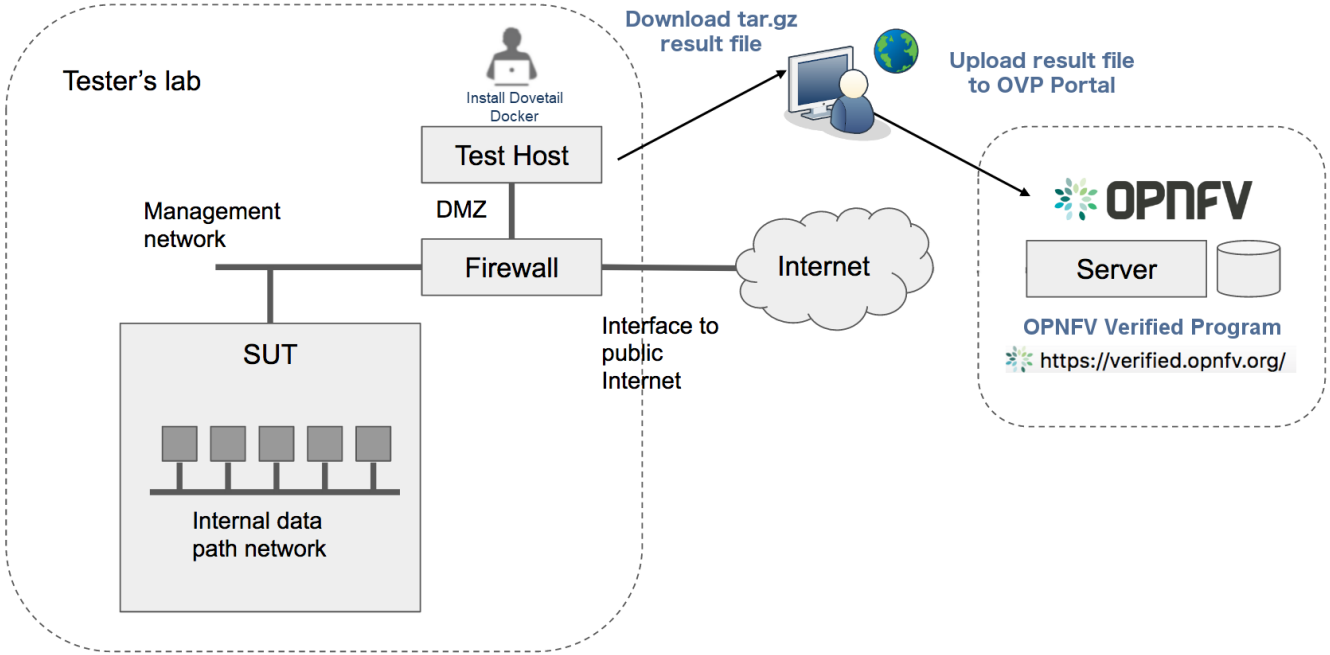
- Neutron Trunk ports
- OpenStack Tempest smoke tests
- BGPVPN Tempest tests
- SDN Controller high-availability
- VNF lifecycle management
- …

Dovetail

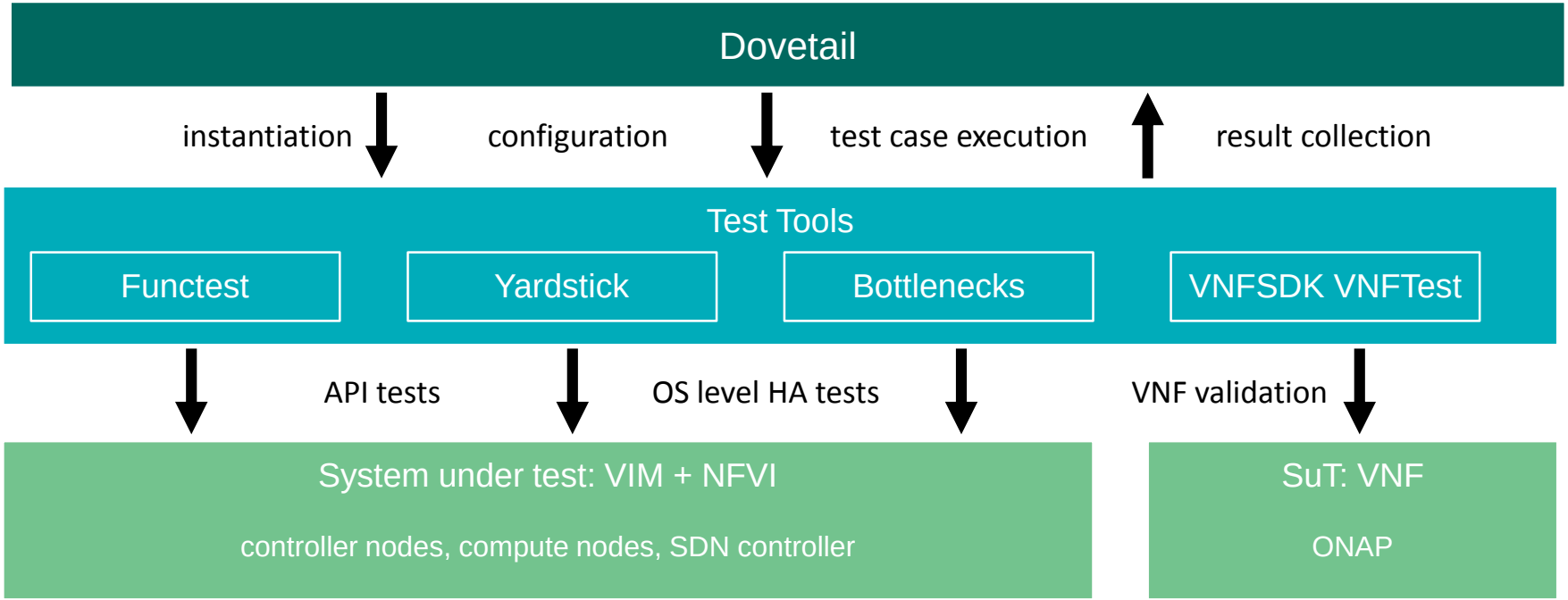
OPNFV Test Ecosystem



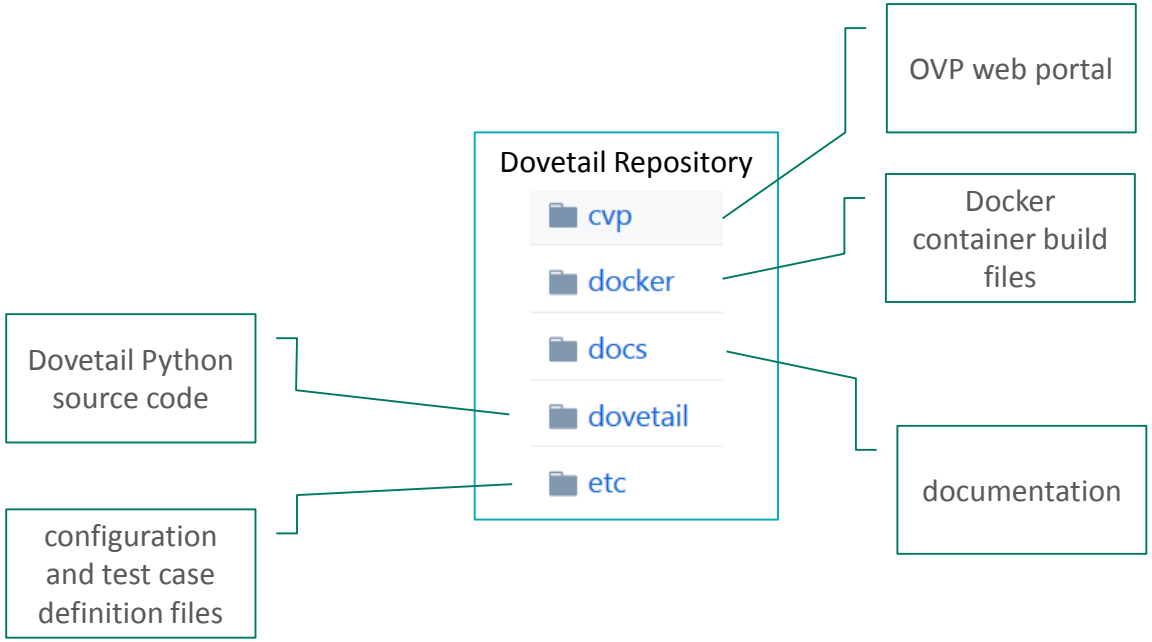
Topology of Test Infrastructure



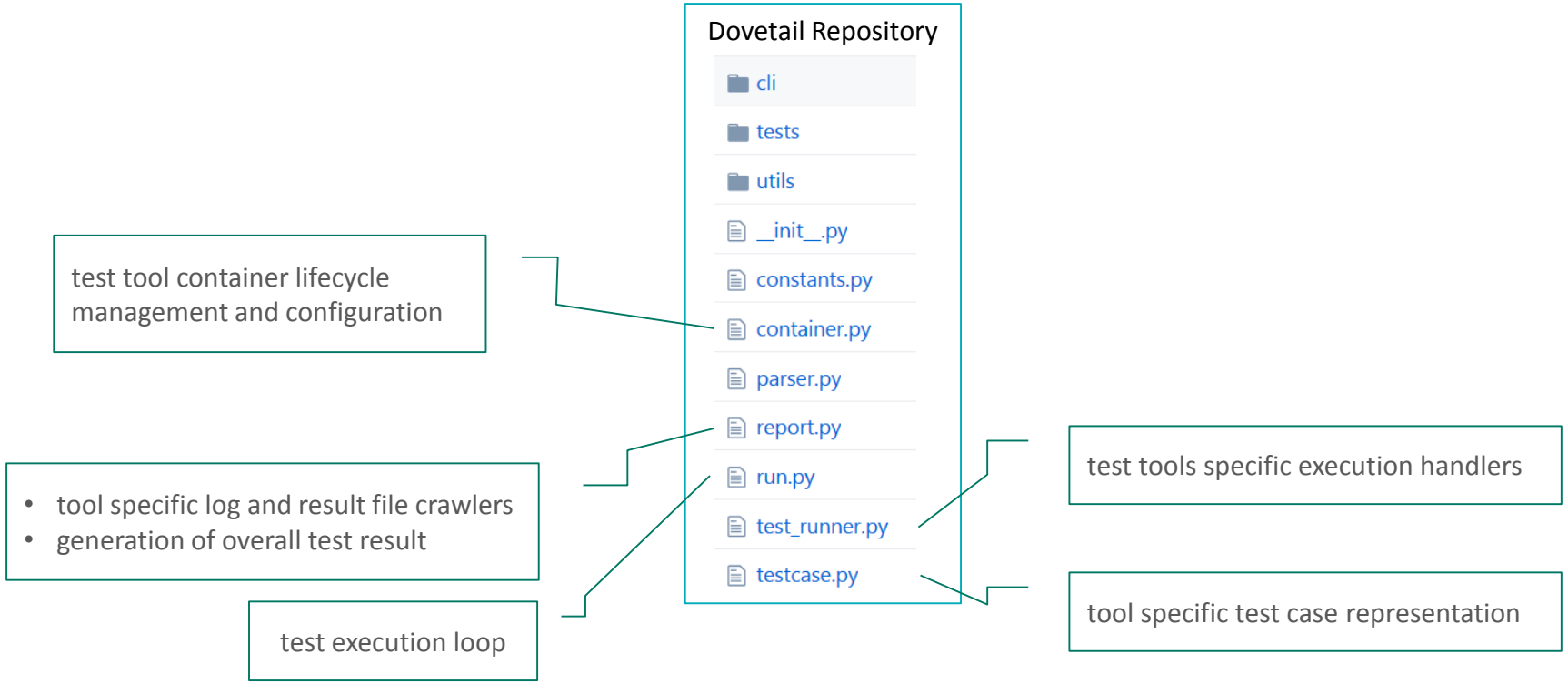
Dovetail Test Execution



Dovetail Architecture



Dovetail Architecture



Integration of VNFTest in Dovetail

http://gerrit.opnfv.org/gerrit/#/c/54317

VNFTest

Logging / Reporting

VnftestCrawler, VnftestChecker

```
from report import Report, VnftestCrawler, VnftestChecker
from report import FunctestCrawler, YardstickCrawler, BottlenecksCrawler
```

Run / CLI

```
class VnftestRunner(DockerRunner):

    def __init__(self, testcase):
        self.type = 'vnftest'
        super(VnftestRunner, self).__init__(testcase)
```

```
class TestRunnerFactory(object):

    TEST_RUNNER_MAP = {
        "functest": FunctestRunner,
        "yardstick": YardstickRunner,
        "bottlenecks": BottlenecksRunner,
        "shell": ShellRunner,
        "vnftest": VnftestRunner
    }
```

Dovetail

```
cli
compliance
conf
container.py
parser.py
patch
report.py
run.py
test_runner.py
testcase
testcase.py
tests
userconfig
utils
```

```
vnf_tag:
  flags:
    - '--vnf_tag'
    - '-v'
  path:
    - 'vnftest/docker_tag'
  help: 'Overwrite tag for
```

Test Suite

Container

Test Case

YAML

```
onap.1.0.0:
  name: onap.1.0.0
  testcases_list:
    - dovetail.lifecycle.tc001
```

```
testsuite_supported:
  - compliance_set
  - proposed_tests
  - debug
  - ovp.1.0.0
  - onap.1.0.0
```

```
---
vnftest:
  image_name: onap/vnftest
  docker_tag: beijing.0
  opts: '-id --privileged=true'
  config:
    dir: '/home/onap/userconfig'
  pre_condition:
    - 'echo this is pre_condition'
  cmds:
```

```
---
dovetail.lifecycle.tc001:
  name: dovetail.lifecycle.tc001
  objective: vnf lifecycle tests
  validate:
    type: vnftest
    pre_condition:
      - 'echo pre-condition'
    testcase: onap_vnftest_tc001
```

```
testarea_supported:
  - osinterop
  - example
  - ha
  - ipv6
  - sdnvpn
  - vping
  - stress
  - tempest
  - optional
  - mandatory
  - full
  - smoke
  - vnf
  - lifecycle
```

OVP Web Portal

OVP (LFN) Web Portal

LFNETWORKING

LFN 'Verified' Web Portal

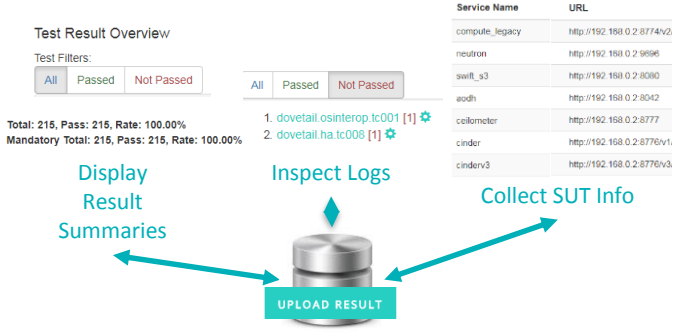
Governance & Workflow

Overview
Governance Guidelines
Terms & Conditions
Process Workflow
Participation Form

Training Resources

Release Information

- Provide Key Resources
- Support Learning
- Incentivize Participation



- Centralized Community Repository
- Collaboration & Result Sharing
- Self-Testing / Community Review

Acceptance & Marketing

Category label

Infrastructure

OPNFV VERIFIED

2018.01

Date versioning

Common Verification Framework

Test Execution, Logging, Centralized Results, Pass/Fail Reporting

Compliance Verification 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/