ViNePerf Kali Release Planning

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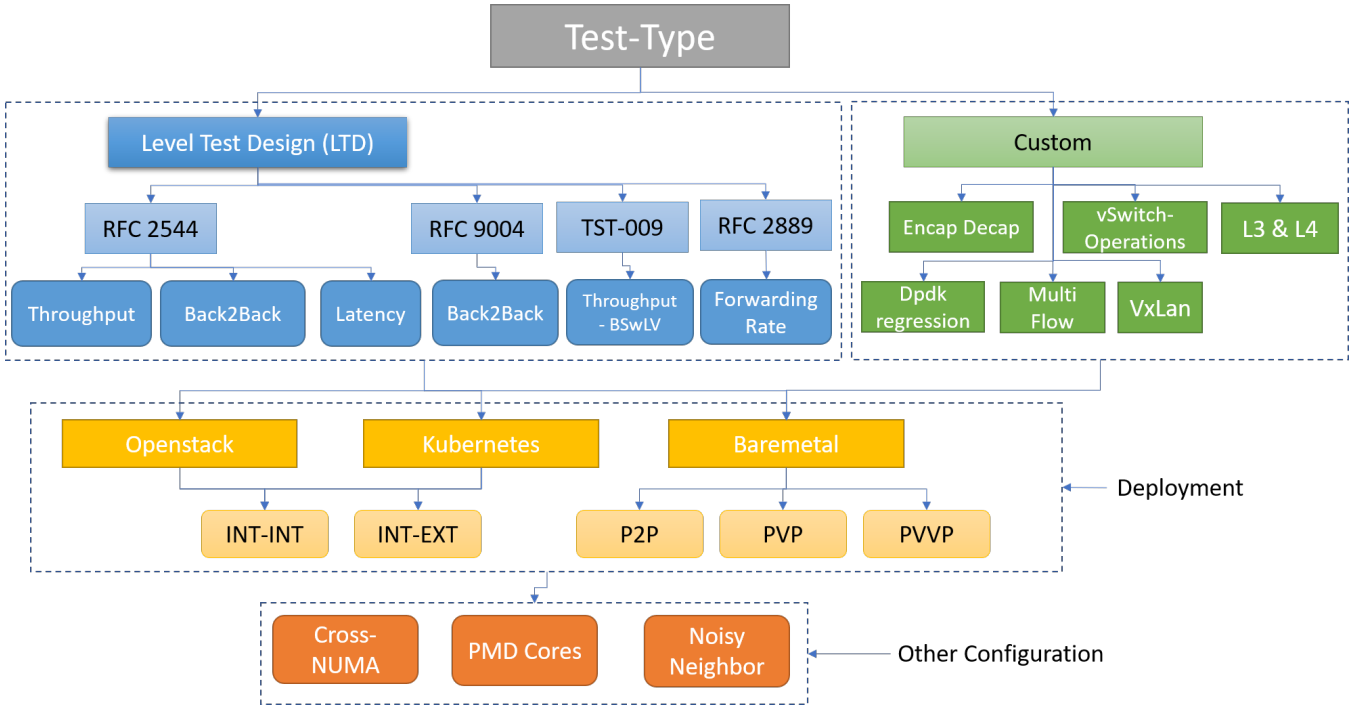
Overview

Project Name	Enter the name of the project
Target Release Name	Kali
Project Lifecycle State	Incubation

Scope

ViNePerf provides an automated test-framework and comprehensive test suite based on industry standards for measuring the data-plane performance **in different cloud environments**. Dataplane in a cloud includes different switching technologies with **physical** and **virtual** network interfaces, and carries traffic to and from workloads running as **virtual-machines and containers**. The architecture of ViNePerf is agnostic of cloud-type, switching-technology, and traffic-generator. ViNePerf allows user to **customize the test-cases**, network-topology, workload-deployment, hardware-configuration, and the versions of the software components such vswitch, vnf, cnf, cni, etc. ViNePerf can be used both **pre-deployment and post-deployment** of the cloud. Though ViNePerf architecture is designed for evaluation of dataplane of clouds in **Lab environments**, it can also be in **production clouds**. ViNePerf methods follows standards developed by the **IETF** and **ETSI NFV**, and contribute to the development of new standards.



Requirements

1. Kubernetes - Int-Int Testing: VINEPERF-638
   a. Pod-Pod Communication: VINEPERF-643
2. Kubernetes - Int-Ext Testing: VINEPERF-639

    a. Multipod Testing: VINEPERF-641
    b. Pod-Resource Isolation Testing:VINEPERF-642
3. Feature Enhancement: VINEPERF-640
    a. Reporting OS/K8S: VINEPERF-644
    b. Multiple Latest OS-Version: VINEPERF-645
    c. Trafficgen Pods: VINEPERF-646

Release Artifacts

Source Code, Documentation, and Release Notes

Name	Description	Format (Container, Compressed File, etc.)
Int-Int Testing	Automated Testcases	Yaml Files, Python Files
Int-Ext Testing	Automated Testcases	Yaml Files, Python Files
Feature Enhancement	Different Features	Python Files, Jinja Templates, Container Images, Dockerfile yaml files

Architecture

High level architecture diagram

https://wiki.anuket.io/x/vgFD and see Scope above.

Internal Dependencies

SampleVNF/Prox, if incorporated as a traffic gen during this release. (Xtesting and testdb pseudo-projects)

External Dependencies

OpenStack, K8s and CNI plugins like MULTUS etc. ETSI NFV TST009, IETF BMWG.

Test and Verification

As a test project, evaluation of the project is relatively continuous. RC-related evaluations will be conducted using RI-compliant systems and pre-compliant systems.

Risks

List any risks and a plan to mitigate each risk.

Risk Description	Mitigation Plan
small number of developers	Anuket-level developer recruiting and Intern projects