ViNePerf Lakelse Release Planning
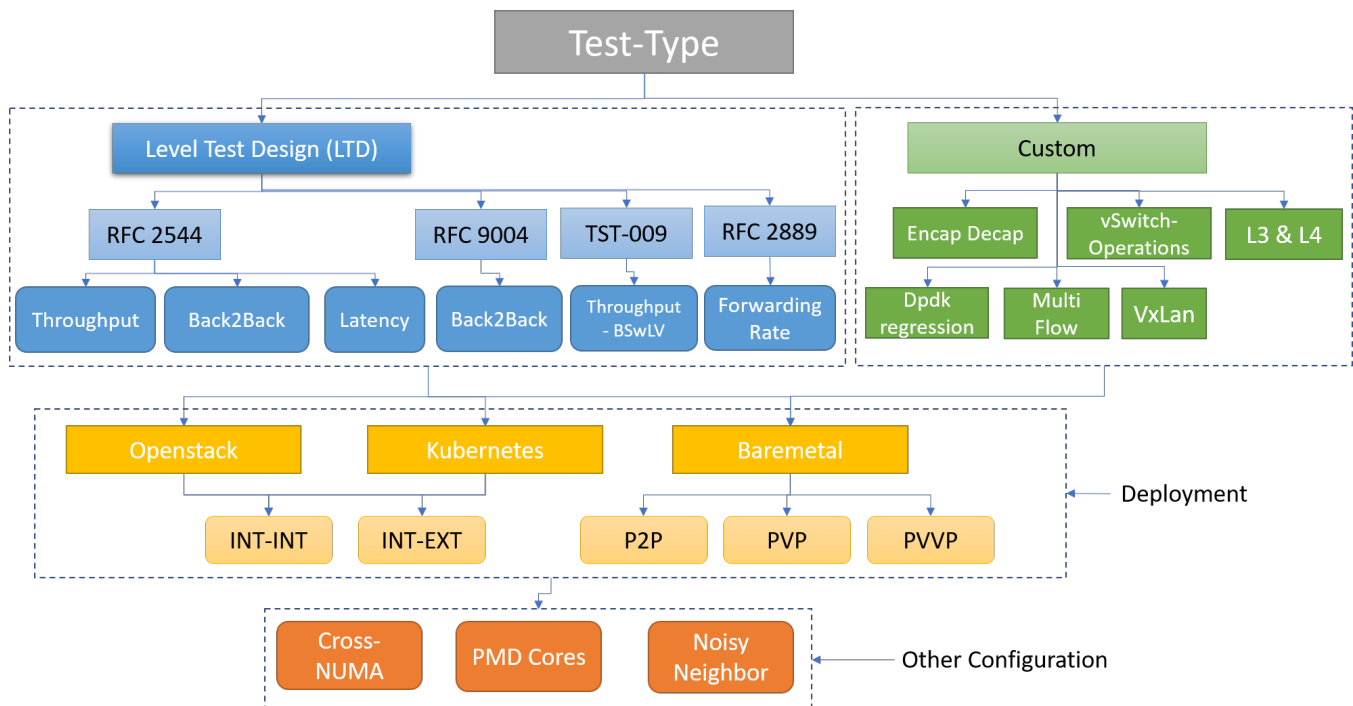
Overview

Project Name	ViNePerf
Target Release Name	Lakelse
Project Lifecycle State	TBD

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. DPPD-Prox Support in ViNePerf
   a. Epic: https://jira.anuket.io/browse/VINEPERF-648

- i. Tasks: https://jira.anuket.io/browse/VINEPERF-649, https://jira.anuket.io/browse/VINEPERF-650, https://jira.anuket.io/browse/VINEPERF-651,
2. Kubernetes - East-West Scenarios.
    - a. Epic: https://jira.anuket.io/browse/VINEPERF-638
        - i. Task: https://jira.anuket.io/browse/VINEPERF-643
3. Enhance X-Testing and ViNePerf Integration
    - a. Epic: https://jira.anuket.io/browse/VINEPERF-652
        - i. Tasks: https://jira.anuket.io/browse/VINEPERF-653 , https://jira.anuket.io/browse/VINEPERF-654
4. Trafficgen/Loadgen Deployment Tool
    - a. Epic: https://jira.anuket.io/browse/VINEPERF-655
        - i. Tasks: https://jira.anuket.io/browse/VINEPERF-656, https://jira.anuket.io/browse/VINEPERF-657

Release Artifacts

Indicate the work product (Executable, Source Code, Library, API description, Tool, Documentation, Release Note, etc) for this release.

Name	Description	Format (Container, Compressed File, etc.)
DPPD-Prox Support in ViNePerf		Source Code: Python Files, Config-files. Pod-Defn Files - Yaml
Kubernetes - East-West Scenarios		Source code: Python files Helm-charts, Pod Defn files.
Enhance X-Testing and ViNePerf Integration		Source Code: Python Files. (config files)
Trafficgen/Loadgen Deployment Tool		Source Code: Python Files

Architecture

High level architecture diagram

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

Internal Dependencies

SampleVNF/Prox - incorporated as a traffic gen during this release..

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	Interns (Thanks to LF)