

# 2021-02-03 - Anuket - Kubernetes Container-Networking Benchmarking for Telco Use cases

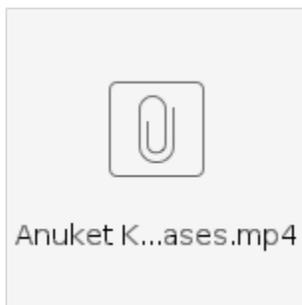
## Topic Leader(s)

- [Sridhar Rao](#) (Spirent Communications)

## Topic Overview

VSPerf project has performed some data plane benchmarking tests on various Container Networking options. Here are some real results with various traffic generators.

## Slides & Recording



## Agenda

Awesome presentation

- Describe VSPERF
- Describe the Experimental Study
  - Thanks to: <see slides>

## Minutes

Work in progress 8 months+, thanks to many people outside the project who helped with details of setup

Looking for feedback on tests we should run, in addition to what has been done (20+ plots - will discuss results in bullets today to save time).

Background on VSPERF project - started in 2014 in OPNFV. Will re-name project soon. beyond test automation development, we conduct Experiments and feedback the experience and features into the project code/framework.

Auto cluster, test, and test runs for the K8s cases.

Cluster: Ansible Role, Hosts, CNIs (Multus) - helps from Student Volunteers! (Parth and Emmanuel)

Described test details / configuration in the slides

#### THE EXPERIMENTS:

- Question what are the K8s performance gaps?
- For DPDK based **multi-interface pods**, what are the CNI plugin options, and how do they perform?
- What are the Setup Challenges?
- OVS-DPDK, VPP, and SR-IOV: How do they compare with various options:
  - VPP with memif outperform vhost user
- Need Binary Search WITH Loss-verification (ETSI NFV TST009)
- Also run RFC 2544 Back 2 Back Frame Benchmark for buffer size measurement (see Internet Draft that updates 2544)
- CPU Count -
- NUMA placement -

#### NEXT STEPS

- OVS -DPDK with memif
- others
- HW Traffic Generator is most reliable.
- Other CNIs? requests (and help appreciated).

[Cedric Ollivier](#) - comments on results, need separate session on deploying the tests in other labs

A: we are using the X-testing framework with VSPERF, need a separate session to cover this. Also sharing the results with testdb so that the results are more widely available.

## Action Items

