CSIT Performance tests
Peter Mikus
Feb 6, 2018
CSIT Performance tests

• Performance tests hierarchy.
• Performance test structure.
• Performance test jobs and execution.
Performance tests hierarchy

- DPDK baseline tests.
  - testpmd, l3fwd
- Kubernetes orchestrated tests.
- VPP tests.
Performance test structure

- Global variables
  - Unique per test type.
  - Applies in subtree.
  - Contains global suite setup/teardown.
- Contains global settings
  - TG trial duration.
  - PDR loss acceptance.
  - PDR loss acceptance type.
  - Nested VM image location.
  - Qemu parameters.

```
    csit/tests
      └── dpdk
          └── perf
              └── init__.robot
            └── kubernetes
                └── perf
                    └── container_memif
                        └── init__.robot
                └── vpp
                    └── perf
                        └── container_memif
                            └── crypto
                                └── honeycomb
                                    └── ip4
                                        └── ip4_tunnels
                                            └── ip6
                                                └── ip6_tunnels
                                                    └── l2
                                                        └── srv6
                                                            └── tcp
                                                                └── vm_vhost
                                                                    └── init__.robot
```
Performance test structure

• Settings
  • Resource: resources/libraries/robot/performance/performance_setup.robot
  • Force Tags!
  • Common/Custom SS/ST/TS/TT.
  • Documentation.

• Variables
  • Absolute minimum: s_limit, traffic_profile

• Behavior-driven style → Data-driven style
Performance test structure

- NDR/PDR discovery (range could be overridden)
  - Available search algorithms: Binary search, Linear search, Combined search.
  - Predictive search?
- NDR/PDR checks

- Variations
  - 64B, IMIX_v4_1, 1518B, 9000B, … .
  - 1t1c, 2t2c, 4t4c.
Performance test jobs and execution

• Executed against physical testbeds.
• Trending jobs
• CSIT-VPP jobs
• VPP-CSIT jobs

• Full list of Jenkins Jobs
  • https://wiki.fd.io/view/CSIT/Jobs