Benchmarking Virtual Switches in OPNFV
draft-vsperf-bmwg-vswitch-opnfv-02

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Outline

- VSWITCHPERF Memo updates

- VSWITCHPERF Framework updates

- VSWITCHPERF Results

- Summary

VSPERF Memo updates

- The memo now **summarizes** the progress of vswitchperf through the Brahmaputra Release in OPNFV.

- Added more complete references to VSPERF Project Artifacts, such as the Level Test Design (LTD) Specification (for Brahmaputra).

- Acknowledge the early work in [I-D.huang-bmwg-virtual-network-performance], and useful discussion with the authors.

- Scope updated to inform the industry as well as BMWG of vswitchperf progress.

- "Soak" tests also added to the test categories, defining this type of test (addressing Marius' comment)

Test Framework updates

- **Supports both:**
  - OVS
  - OVS with DPDK
- **Loopback applications in the Guest can be:**
  - DPDK testpmd.
  - Linux Bridge.
  - l2fwd Kernel Module.
- **Supported traffic generators:**
  - Ixia: IxOS and IxNet.
  - Spirent.
  - Dummy.

- **Available tests:**
  - phy2phy_tput: LTD.Throughput.RFC2544.PacketLossRatio
  - back2back: LTD.Throughput.RFC2544.BackToBackFrames
  - phy2phy_tput_mod_vlan:LTD.Throughput.RFC2544.PacketLossRatioFrameModification
  - phy2phy_cont: Phy2Phy Continuous Stream
  - pvp_cont: PVP Continuous Stream
  - pvvp_cont: PVVP Continuous Stream
  - phy2phy_scalability:LTD.Scalability.RFC2544.0PacketLoss
  - pvp_tput: LTD.Throughput.RFC2544.PacketLossRatio
  - pvp_back2back: LTD.Throughput.RFC2544.BackToBackFrames
  - pvvp_tput: LTD.Throughput.RFC2544.PacketLossRatio
  - pvvp_back2back: LTD.Throughput.RFC2544.BackToBackFrames
  - phy2phy_cpu_load: LTD.CPU.RFC2544.0PacketLoss
  - phy2phy_mem_load: LTD.Memory.RFC2544.0PacketLoss
- **Supported deployment scenarios:**
  - Physical port -> vSwitch -> Physical port.
  - Physical port -> vSwitch -> VNF -> vSwitch -> Physical port.
  - Physical port -> vSwitch -> VNF -> vSwitch -> VNF -> vSwitch -> Physical port.

Results

- The OPNFV results dashboard is available at:
  - https://www.opnfv.org/opnfvtestgraphs/per-test-projects/vsperf
- The results dashboard is available at:
  - http://testresults.opnfv.org/proto/index-vsperf.html
- Test report is available at:
  - https://artifacts.opnfv.org/vswitchperf/brahmaputra/report/report.pdf
- Log files collected during the test:
  - https://artifacts.opnfv.org/vswitchperf/brahmaputra/report/logs.tar.gz

Summary

- Real focus since last IETF meeting was to build out the test framework.

- The IETF Draft scope has been limited to summarizing the vswitchperf progress for OPNFV Release B.

- Call for WG adoption is in-progress, any further comments?

BACKUP