SFO15-408: ODP-DPDK platform performance

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Agenda

● The testcase
● The test environment
● Status at previous Connect
● Current status
● Other achievements
● Future plans
The testcase

- The generator (netmap-pktgen) sends 64 bytes UDP packets near line rate
- Ports and addresses are constant
- OVS forwards them to another port
- There is a sink on the other side to count the received packets (netmap-pktgen again)
The test environment

- Intel 82599ES 2-port 10 Gbps NIC
- Intel i5-4570 @ 3.20GHz
- ODP-DPDK platform developed originally by Venkatesh Vivekanandand
- OVS base: v2.4.0+ (forked 31st Aug)
- ODP API: v1.3 (+ RSS hash support)
- DPDK API: v2.1
Status at previous Connect
Current status

1.44% overhead
Other achievements

- Unit tests are running (except classification)
- ODP API support: 0.6 -> 1.3
- DPDK base: 1.7.1 -> 2.1
- OVS base: 2.3.1 -> 2.4.90
- ODP-DPDK: 268 commits, 4191 insertions (+), 2754 deletions(-)
- ODP-OVS: 46 commits, 256 insertions(+), 211 deletions(-)
Future plans

- More thorough tests (RFC 2544-like)
- Run these tests in LAVA
- Utilize as much as possible from OPNFV’s VSPERF project
- Optimize further OVS-ODP and ODP platforms to achieve a near line rate performance
Questions?