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# 实验环境

ceshi

# 快速开始

1. 解压源码

|  |
| --- |
| tar -xvf dpdk.tar.gz  cd dpdk |

1. 使能pcap（需要libpcap头文件，apt-get install libpcap-dev）

|  |
| --- |
| make config T=x86\_64-native-linuxapp-gcc  sed -ri 's,(PMD\_PCAP=).\*,\1y,' build/.config |

1. 编译库和测试程序（默认配置需要Linux头文件）

|  |
| --- |
| make |

1. 分配大页内存

|  |
| --- |
| mkdir -p /mnt/huge  mount -t hugetlbfs nodev /mnt/huge  echo 64 > /sys/devices/system/node/node0/hugepages/hugepages-2048kB/nr\_hugepages |

1. 运行PMD驱动测试程序（端口之间有连接）。

|  |
| --- |
| build/app/testpmd -c7 -n3 --vdev=net\_pcap0,iface=eth0 --vdev=net\_pcap1,iface=eth1 --  -i --nb-cores=2 --nb-ports=2 --total-num-mbufs=2048 |

实验结果：

root@dp:/home/dpanic/dpdk-17.05/build/app# ./testpmd -c7 -n3 --vdev=net\_pcap0,iface=ens38 --vdev=net\_pcap1,iface=ens39 -- -i --nb-cores=2 --nb-ports=2 --total-num-mbufs=2048

EAL: Detected 4 lcore(s)

EAL: No free hugepages reported in hugepages-1048576kB

EAL: Probing VFIO support...

PMD: Initializing pmd\_pcap for net\_pcap0

PMD: Creating pcap-backed ethdev on numa socket 4294967295

PMD: Initializing pmd\_pcap for net\_pcap1

PMD: Creating pcap-backed ethdev on numa socket 4294967295

Interactive-mode selected

Warning: NUMA should be configured manually by using --port-numa-config and --ring-numa-config parameters along with --numa.

USER1: create a new mbuf pool <mbuf\_pool\_socket\_0>: n=2048, size=2176, socket=0

Configuring Port 0 (socket 0)

Port 0: 00:00:00:01:02:03

Configuring Port 1 (socket 0)

Port 1: 00:00:00:01:02:03

Checking link statuses...

Done

testpmd> show port stats all

######################## NIC statistics for port 0 ########################

RX-packets: 0 RX-missed: 0 RX-bytes: 0

RX-errors: 0

RX-nombuf: 0

TX-packets: 0 TX-errors: 0 TX-bytes: 0

Throughput (since last show)

Rx-pps: 0

Tx-pps: 0

############################################################################

######################## NIC statistics for port 1 ########################

RX-packets: 0 RX-missed: 0 RX-bytes: 0

RX-errors: 0

RX-nombuf: 0

TX-packets: 0 TX-errors: 0 TX-bytes: 0

Throughput (since last show)

Rx-pps: 0

Tx-pps: 0

############################################################################

testpmd> start tx\_first

io packet forwarding - ports=2 - cores=2 - streams=2 - NUMA support enabled, MP over anonymous pages disabled

Logical Core 1 (socket 0) forwards packets on 1 streams:

RX P=0/Q=0 (socket 0) -> TX P=1/Q=0 (socket 0) peer=02:00:00:00:00:01

Logical Core 2 (socket 0) forwards packets on 1 streams:

RX P=1/Q=0 (socket 0) -> TX P=0/Q=0 (socket 0) peer=02:00:00:00:00:00

io packet forwarding - CRC stripping enabled - packets/burst=32

nb forwarding cores=2 - nb forwarding ports=2

RX queues=1 - RX desc=128 - RX free threshold=0

RX threshold registers: pthresh=0 hthresh=0 wthresh=0

TX queues=1 - TX desc=512 - TX free threshold=0

TX threshold registers: pthresh=0 hthresh=0 wthresh=0

TX RS bit threshold=0 - TXQ flags=0x0

testpmd> stop