ARM SUPPORT IN DPDK

Current Status as of November 2015

Current Hardware

Pre DPDK 2.0

- X86 (various)

DPDK 2.0

- PowerPC

DPPDK 2.1

- TILE-Gx

DPDK 2.2

- ARMv7 & ARMv8

ARMv7 Status

- Intel engineers published ARMv7 port

- RehiveTech pushed alternative ARMv7 port one day later

- Intel & RehiveTech worked together to merge into one common port

- RehiveTech published final patch set

- Maintainer: Jan Viktorin viktorin@rehivetech.com

Has been merged into DPDK 2.2 RC2

ARMv8 Status

- Intel engineers published ARMv8 port

- Cavium Networks pushed alternative ARMv8 port one week later

- Intel, RehiveTech & Cavium worked together to merge into one common port

- Cavium Networks published final patch set

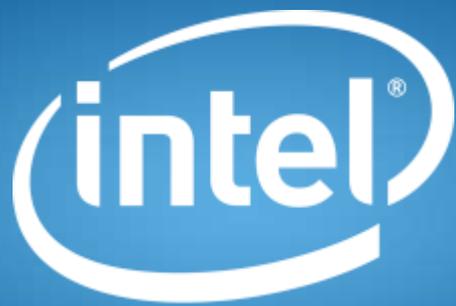- Maintainer: Jerin Jacob jerin.jacob@caviumnetworks.com

Has been merged into DPDK 2.2 RC2

ARMv7 Functionality

- Huge page support untested (needs kernel >= 3.11)

- No PCI support available (run with –no-PCI)

- No Physical NIC support in mainline as yet
  - PMD for Axxia AXM5500 in development

- Tested on Axxia AXM5500

- PCAP support tested on Raspberry Pi 2 Model B+

ARMv8 Functionality

- Huge page support

- PCI support (with kernel patch)

- Traffic through Physical NICS (82599) (2 x 10G ports)

- Should work on other NICS
  - As long as no unaligned memory access.
  - Other NICS not yet tested

- Compiles igb_uio, kni and all physical device PMDs.

- Tested on ThunderX server & X-Gene MP30-AR0