# NFP Driver

## Recent Developments

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# Agenda

- Increased chip coverage: NFP-3800 Support

- Flexible VF Queue Assignment

- Other Highlights

# NFP-3800 Support

- Device currently targeted at 10GbE and 25GbE use-cases

- Chronological successor to NFP-6000 and NFP-4000

- Abstraction to allow driver to support different register layouts etc...

- Uses new NFDK as opposed to NFD3 host/NIC datapath

  - TX allows multiple descriptors per packet

- Status: v5.18

# VF Queue Assingment

- Allow pool of queues to be flexibly assigned to VFs

  - e.g. 2 VFs with 16 queues, 4 VFs with 8 queues and the remainder with 4 queues

Proposals

- Patch set-posted proposes generic Devlink interface
  - # devlink dev param set pci/0000:01:00.0 \
    name **max_vf_queue** value **"2-4-122-0"** cmode runtime

- Jakub Kicinski has suggested using Devlink resource API

- Saeed Mahameed has suggested using Devlink Port API

  - # devlink port function set DEV/PORT_INDEX [ queue_count count ] ...

Devlink API: https://www.kernel.org/doc/html/latest/networking/devlink/index.html

# Other Highlights

**Crypto Hardware Offload**

- IPsec hardware offload

  - Tunnel and transport mode

  - Targeting v6.2

**OVS-TC Hardware Offload**

- IP address on LAG netdev

  - Targeting v6.2

- Support SNAT/DNAT

  - Included in v6.1