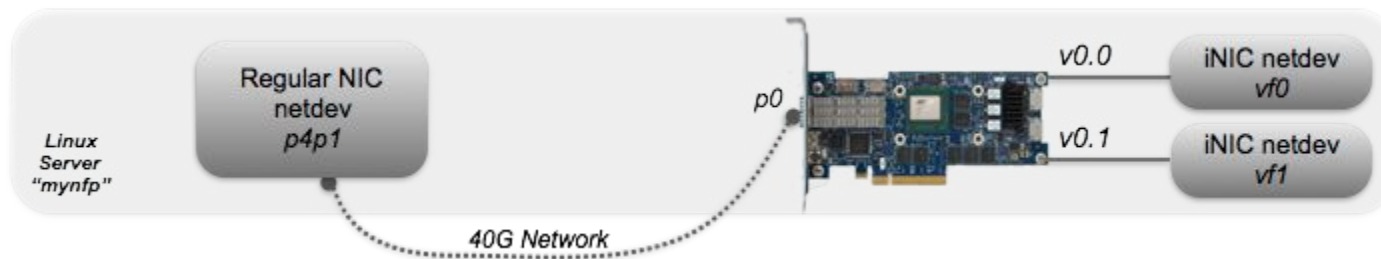# DXDD: Hands on Lab

Edwin Peer, Dirk van der Merwe

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Learning Goals

- Overview of the Netronome P4 SDK capabilities
- Integrated Development Environment
  - Elements - Projects, Files
  - Workflows - Editing, Debugging
- P4 constructs
  - Parsing, matching, actions
- Hands on: type it, see it run (workbook / stations)
  - Change it
  - Q+A

IDE Workflow

- Create project, add files (P4, C for sandbox, JSON for rules)
- Edit code (P4 / C), rules (= table entries)
- Build project
- Run / debug (day in life of code or packet)
- Lather, rinse, repeat
- Ship it / profit!

Expected Behavior

Regular NIC netdev p4p1

Linux Server "mynfp"

p0

40G Network

v0.0 — iNIC netdev vf0

v0.1 — iNIC netdev vf1

Part 1: VNF IN-band Telemetry

- latency measurement using in-band timestamps, custom headers and C

Part 2: Basic P4 NIC

- touching advanced features (Load balancing and Metering)
- time permitting

- ***Get started! Go to http://dxdd.netronome.com for instructions...***