# Deep Dive: How NICs Work Today

## WGTLGO ("We Got The Last Good One")

**Chairs:**
**Jamal Hadi Salim, Mirja Kühlewind**

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- BCP 25 (Working Group processes)
- BCP 25 (Anti-Harassment Procedures)
- BCP 54 (Code of Conduct)
- BCP 78 (Copyright)
- BCP 79 (Patents, Participation)
- https://www.ietf.org/privacy-policy/ (Privacy Policy)

# Agenda

- Administrivia + Intro (10 minutes)
  - Note Well
  - Agenda Bashing
  - Scribe Dragooning
  - Jabber
  - Remote participation
  - Blue Sheets
  - Introduction
- Presentation (55 minutes)
  - Clarifying questions only please
- Q&A (25 minutes)

# Introduction: Focus

- In Scope
  - Basic NIC support
  - Hardware offload from host stack functionality
  - Linux kernel is reference for architecture and APIs
- Out of Scope:
  - Kernel bypass
  - Smaller CPE level devices or Large ASICs
  - Virtualization offload technology
  - Storage/NIC Interfacing

# Introduction: Technology Relationship to IETF

- Protocol implementation
- Nodes that performing both host and forwarding functions
- NICs can accelerate host protocol processing
  - TCP, UDP, QUIC
  - TLS, IPsec
  - NVO3 - Tunnelling and Network Virtualization
- Accelerate forwarding functions
  - L2 -> Ln filtering and forwarding
  - QoS handling

# Introduction: Presenters

- Tom Herbert  [Intel]
- Simon Horman  [Netronome]
- Andy Gospodarek  [Broadcom]

# Introduction: Acknowledgements

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