



OPENFABRICS  
ALLIANCE

# OFVWG: Linux RDMA ABI

10<sup>TH</sup>  
ANNUAL  
INTERNATIONAL  
DEVELOPER  
WORKSHOP

# Agenda

- Introduction
- ABI wish list
- What next?

# Introduction

- Align with Linux best-practices
  - ABI
  - Managing network subsystem, e.g., netlink
- Improve extensibility

# Wish List

- Common method for all interfaces
  - uverbs, ucma, ucm, etc.
- Support nested attributes

```
{  
  cmd: modify QP  
  {  
    /* core params */  
  }  
  {  
    /* Primary address path attributes  
    - according to QP type and protocol */  
  }  
  {  
    /* Alternate address path attributes */  
  }  
  {  
    /* optional feature D */  
  }  
}
```

# Wish List (cont.)

- Vendor-specific extensions
  - New APIs
  - Fast-path channels
  - Features to existing APIs

```
{  
  cmd: modify QP  
  {  
    /* core params */  
  }  
  {  
    Type: vendor  
    /* Extended vendor attributes to this specific Object */  
  }  
}
```

# Wish List (cont.)

- Straightforward mapping of existing ABI
  - Flexible extensions for new functions and object types
- Backward compatible to existing ABI
  - At minimum, administrative host-wide option
- Proper teardown upon process exit
- Synchronous interface
  - Allow future extensions to support an asynchronous interface in a standard manner
- Consider standard mmap()s
  - E.g., statistics

# What next?

- Areas to work on
  - Mechanism
    - E.g., ioctl vs netlink sockets
  - Packing
  - Mapping existing ABIs to new scheme
  - Vendor channels
- Schedule next meeting



Thank You

