

## SYSFS FILES

For each InfiniBand device, the InfiniBand drivers create the following files under `/sys/class/infiniband/<device name>`:

```
node_type      - Node type (CA, switch or router)
node_guid      - Node GUID
sys_image_guid - System image GUID
```

In addition, there is a "ports" subdirectory, with one subdirectory for each port. For example, if `mtbca0` is a 2-port HCA, there will be two directories:

```
/sys/class/infiniband/mtbca0/ports/1
/sys/class/infiniband/mtbca0/ports/2
```

(A switch will only have a single "0" subdirectory for switch port 0; no subdirectory is created for normal switch ports)

In each port subdirectory, the following files are created:

```
cap_mask      - Port capability mask
lid           - Port LID
lid_mask_count - Port LID mask count
rate          - Port data rate (active width * active speed)
sm_lid        - Subnet manager LID for port's subnet
sm_sl         - Subnet manager SL for port's subnet
state         - Port state (DOWN, INIT, ARMED, ACTIVE or ACTIVE_DEFER)
phys_state    - Port physical state (Sleep, Polling, LinkUp, etc)
```

There is also a "counters" subdirectory, with files

```
VL15_dropped
excessive_buffer_overrun_errors
link_downed
link_error_recovery
local_link_integrity_errors
port_rcv_constraint_errors
port_rcv_data
port_rcv_errors
port_rcv_packets
port_rcv_remote_physical_errors
port_rcv_switch_relay_errors
port_xmit_constraint_errors
port_xmit_data
port_xmit_discards
port_xmit_packets
symbol_error
```

Each of these files contains the corresponding value from the port's Performance Management PortCounters attribute, as described in section 16.1.3.5 of the InfiniBand Architecture Specification.

The "pkeys" and "gids" subdirectories contain one file for each entry in the port's P\_Key or GID table respectively. For example, `ports/1/pkeys/10` contains the value at index 10 in port 1's P\_Key

sysfs.txt

table.

MTHCA

The Mellanox HCA driver also creates the files:

- hw\_rev - Hardware revision number
- fw\_ver - Firmware version
- hca\_type - HCA type: "MT23108", "MT25208 (MT23108 compat mode)",  
or "MT25208"