Control VM (aka driver domain): has direct access to the hardware and controls all VM operations.

Guest VM: runs the user application. Data originating from user-space are transmitted to the network via:

- i) the bridged case (black, solid)
- ii) direct assignment (blue, solid)

User Application

MPI

MX bin compat

Open-MX library

netback: handles frames from/to a generic guest. Injects them into the software bridge.

NIC driver

Software bridge

Xen

Generic 10GbE NIC

Smart 10GbE NIC

Hardware

netfront: handles all virtual ethernet traffic and forwards it to the netback.

NIC driver

Ethernet

Open-MX protocol:

handles requests from the OpenMX library. Builds the frame and pushes it on to the Ethernet stack.