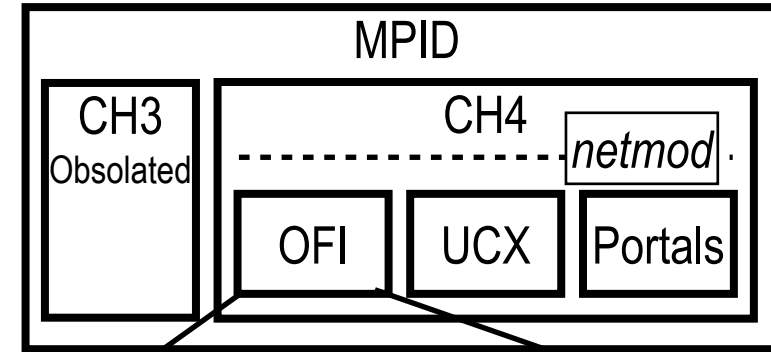


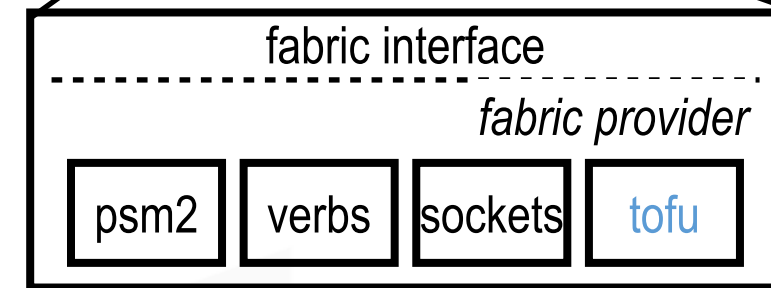
An Overview of RIKEN MPI (MPICH-Tofu)

- **Derivative of MPICH**
 - Collaboration between RIKEN and Argonne
- **Fugaku specific features are developed by RIKEN**
 - Some collectives, e.g. Barrier and Reduce, are offloaded in Tofu (No CPU cycles are involved)
 - Process-in-process will be integrated
 - Optimized XPMEM on McKernel
- **Status**
 - The tofu fabric provider has been implemented and tested
 - Performance tuning is being done

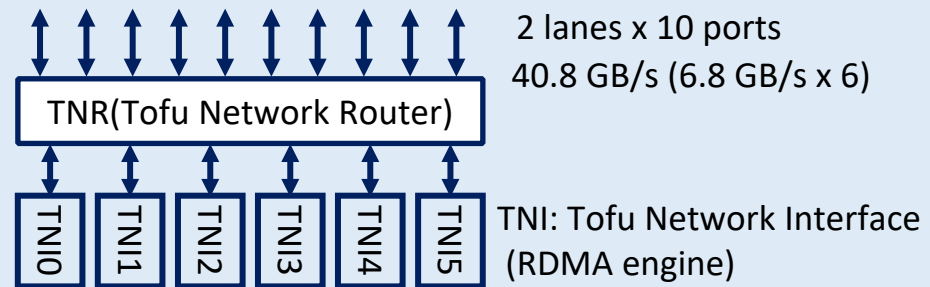
MPICH
(libmpi)



libfabric
(libfabric)



Tofu Features



- 6 RDMA Engines
- Hardware barrier support
- Network offloading capability