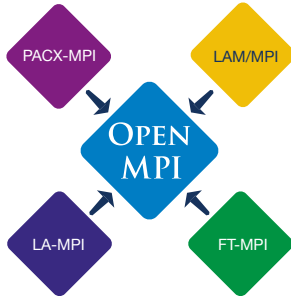




# OPEN MPI



## A HIGH PERFORMANCE MESSAGE PASSING LIBRARY

THE OPEN MPI PROJECT is an open source MPI-2.1 implementation that is developed and maintained by a consortium of academic, research, and industry partners. Open MPI integrates technologies and resources from several other projects [HARNESS/FT-MPI, LA-MPI, LAM/MPI, and PACX-MPI] in order to build the best MPI library available. A completely new MPI-2 compliant implementation, Open MPI offers advantages for system and software vendors, application developers and computer science researchers.

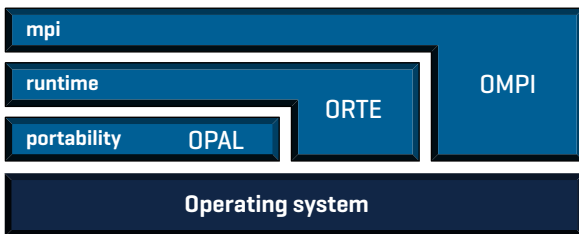
## GOALS

- Create a free, open source [new BSD license], peer-reviewed, production-quality complete MPI-2 implementation.
- Provide extremely high, competitive performance [latency, bandwidth collectives, ...].
- Offer a stable platform for 3rd party research and commercial development.
- Help prevent the “forking problem” common to other MPI projects.
- Support a wide variety of HPC platforms and environments.
- Work with and for the HPC community to make a world-class MPI-2 implementation that can be used on a wide range of systems.

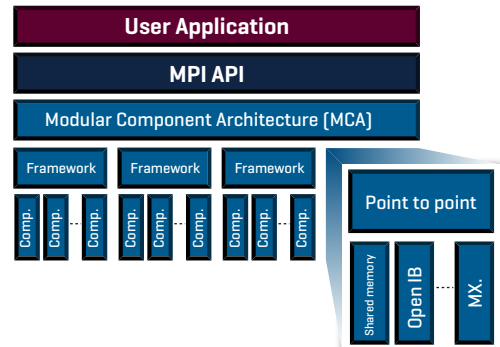
## FEATURES

- Full MPI-2.1 standards conformance
- Thread safety and concurrency
- Dynamic process spawning/management
- Component-based design, documented APIs
- Single library supports all networks
- Reliable and fast job management
- Supports network and network heterogeneity
- Multiple job schedulers and OS's supported
- Network and process fault tolerance
- Portable, tunable, and maintainable
- Multicore aware
- Exascale ready

## OPEN MPI ARCHITECTURE



## RUN-TIME COMPONENT ARCHITECTURE



WE ARE ACTIVELY SEEKING INPUT FROM HPC VENDORS, INTEGRATORS, AND USERS <http://www.open-mpi.org/community/contact.php>