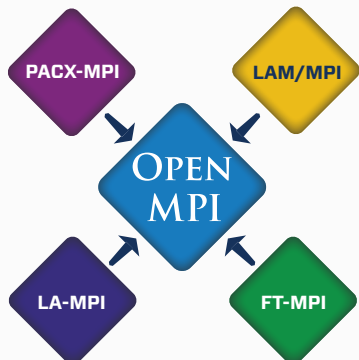




# OPEN MPI



## A HIGH PERFORMANCE MESSAGE PASSING LIBRARY

The Open MPI Project is an open source MPI 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.

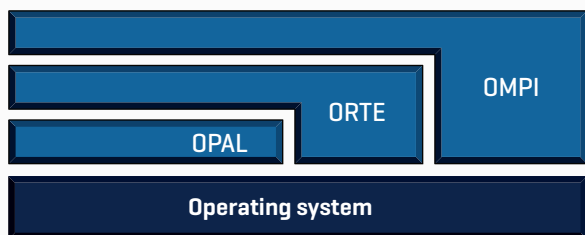
### GOALS

- Create a free, open source (new BSD license), peer-reviewed, production-quality complete MPI implementation.
- Provide extremely high, competitive performance (latency, bandwidth collectives, etc.).
- Offer a stable platform for 3rd party research and commercial development.
- Maintains the scalability of the runtime and the performance of the implementation on all heterogeneous platforms.
- Support a wide variety of HPC platforms and environments by working together with the HPC community to provide a world-class MPI implementation that can be used on a wide range of systems, from the small cluster to some of the biggest machines in the world.

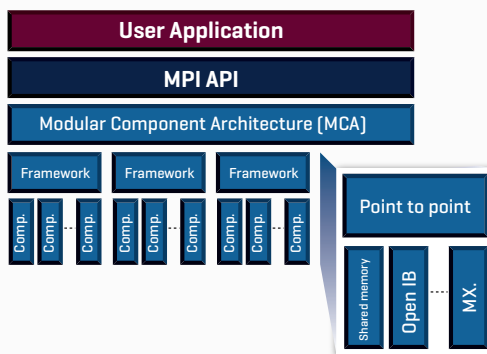
### FEATURES

- Full MPI-3.0 standards conformance
- Thread safety and concurrency
- Dynamic process spawning/management
- Component-based design, documented APIs
- Single library supports all networks
- Resilient, Scalable and Efficient job management
- Supports network and network heterogeneity
- Multiple job schedulers and OS's supported
- Network and process fault tolerance
- Portable, tunable, and maintainable
- Multicore and GPU 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>

