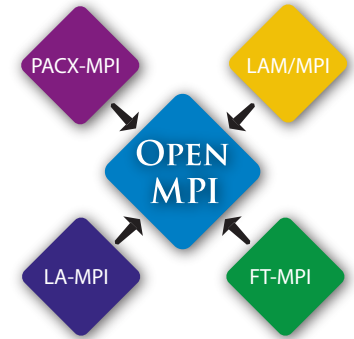




# OPEN MPI

## A High Performance Message Passing Library

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.



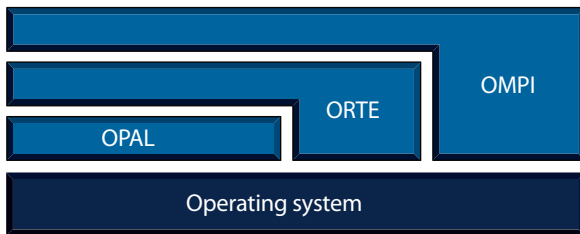
### GOALS

- Create a free, open source (new BSD license), peer-reviewed, production-quality complete MPI-2 implementation.
- Provide extremely high, competitive performance (latency, bandwidth,...).
- 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.

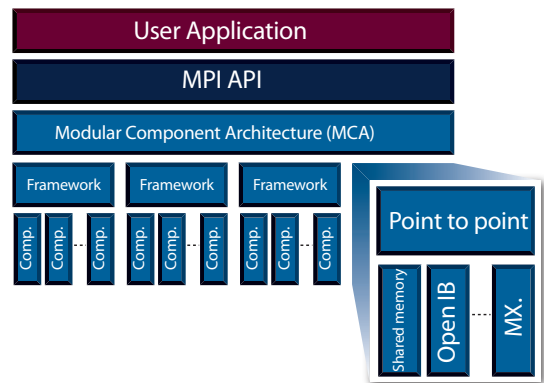
### FEATURES

- Full MPI-2 standards conformance
- Thread safety and concurrency
- Dynamic process spawning
- Component-based design, documented APIs
- Single library supports all networks
- Reliable and fast job management
- Supports network heterogeneity
- Multiple job schedulers and OS's supported
- Network and process fault tolerance
- Portable, tunable, and maintainable

### Open MPI Build Architecture



### Run-time Component Architecture



We are actively seeking input from HPC vendors, integrators and users:

<http://www.open-mpi.org/community/contact.php>

