

Why Open MPI?

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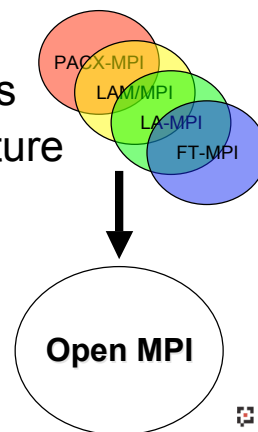


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What is Open MPI?

- ❑ Open source implementation of MPI-2
- ❑ Combined expertise from 4+ previous MPIs
- ❑ High performance & robust
- ❑ Works with most interconnects
- ❑ Modular Component Architecture
 - Combinatorial capabilities
 - Function pointers faster than shared library calls



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HPC “Users” of Open MPI

- Researchers
 - Scientists
 - Developers
- Vendors
 - Software
 - Network
 - Cluster/Machine
- Sysadmins



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Why Scientists use Open MPI

- High performance implementation
- Common interface on many systems
- Active community support



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Why Developers “use” Open MPI

- Open source
- Modular design
 - Treat “uninteresting parts” as black boxes
 - Mix & match components
- The leverage effect
 - Stand on the shoulders of giants
 - Can experiment inside a production quality MPI



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Why Software Vendors?

- Portable
- Robust
- High Performance
- Customizable
- Standardized



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Why Network Vendors?

- ❑ Easy to add support for new hardware
- ❑ Benefit from other's MCA components
- ❑ Performance



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Why Cluster/Machine Vendors?

- ❑ Single solution
- ❑ User support community
- ❑ Customization/Tuning



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Why Sysadmins use Open MPI?

- Single solution
 - Multiple clusters/machines
- Single install for multiple users
 - Runtime selection of features
 - Future support for 32 & 64-bit in one install
- Highly configurable
 - System level
 - User level



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Conclusions

- Open MPI membership increasing rapidly
 - Quadrupled in 3 years from 3 initial members
 - Fourteen voting member organizations today
- Major vendor support
- A “Single Solution” has great appeal!

<http://www.open-mpi.org/>



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Open MPI Events @ IU Booth

- Tuesday 1:30 - 2:00pm
What we've done and where we're going
- Tuesday 2:00pm
iPod nano giveaway!
- Wednesday 4:00 - 4:50pm
Open MPI: A research platform
- Thursday 11:00 - 11:50am
Dealing with disaster: Fault Tolerance in Open MPI



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Questions?



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