Open MPI and Open Fabrics Software
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#OFSUserGroup

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Outline

- Release timeline
- Github
- Upcoming Features
- Status of Open MPI and Open Fabrics software
- What’s trending
Release Timeline

March 15 – 18, 2015

- **March 15 – 18, 2015**
  - **OFADevWorkshop**

- **1.9/2.0 branch**
  - **master**
  - **5/15 (tentative)**
  - **next stable release 3/15**

- **1.7.0...5**
  - **Feature release**

- **1.8.0...4**
  - **1.8.5**
  - **Stable release**
https://github.com/open-mpi/ompi

Open MPI main development repository

- 22,339 commits
- 1 branch
- 1 release
- 59 contributors

Merge pull request #457 from hjelmn/mpit_fixes

- config
  - opal_check_pmi: protect un-prefixed shell variables
  - 6 days ago
- contrib
  - libltdl: remove libltdl from the tree
  - 9 days ago
- examples
  - Add missing files to tarball
  - a month ago
- ompi
  - Merge pull request #457 from hjelmn/mpit_fixes
  - 9 hours ago
- opal
  - Merge pull request #457 from hjelmn/mpit_fixes
  - 9 hours ago
- orte
  - grpcom: fixed brks and rcvd algorithms - added enough space for masks
  - 11 hours ago
- oshmem
  - (ortelompiloshmem)*info tools: convert to opal_dl interface
  - 9 days ago
- test
  - datatypes: trivial spelling fix
  - 19 days ago
- .gitignore
  - Update orte-submit manpage, add the ompi-* versions of orte-dvm and o...
  - 2 months ago
- .mailmap
  - Update the emails from UTK folks.
  - a year ago
- AUTHORS
  - AUTHORS: Updated with Git email addresses (vs. SVN IDs)
  - 6 months ago
Github move

• Special thanks to David Goodell and Jeff Squyres for extra effort to make this happen
• Open git issue if you wish to report a bug
• Better yet, do a fork, fix the problem, then issue a pull request - @jsquyres or @hppritcha
  – Note a major feature may require signing project’s collaborator agreement
• Check the [git wiki page](#) for info on working with Open MPI on github, etc.
Upcoming Features – 1.9/2.0 release stream

• MPI 3.0 errata and MPI 3.1 compliant (assuming 3.1 is passed at June ‘15 forum meeting)
  – Possible exception of ticket #273
• MPI_THREAD_MULTIPLE support for important BTLs
• Job startup improvements and reduced memory footprint connection management info
• Libfabric adoption (usNIC, OFI MTL)
• Mellanox specific improvements
• Streamlined build process for Cray systems
• Improved asynchronous progress for some BTLs
• ScoreP support
• One or more MPI-4 features (as MPIX_*)
Deprecated Features in 1.9/2.0

- Cray XT systems
  - May terminate support for Cray XE CLE 4.X
- MX BTL
- SCIF BTL (?)
- Coll ML component (?)
Open Fabrics and Open MPI
OFED Software use in Open MPI (master)

- Open IB BTL
- MXM, PSM, and libfabric MTLs
- Mellanox FCA collective accelerator package
- Out of band control network (used by mpirun)
  - Uses UD
What’s in/what’s not

• For Mellanox HCA’s use MXM/FCA
  – Well supported by the vendor
  – Actively being developed/enhanced
  – export MXM_TLS=rc,shm,self for best performance, for scalability ud,shm,self, latest HCA/firmware, dc,shm,self

• For Intel Infinipath HCA’s use PSM
  – OFI libfabric MTL is available for a check-out

• The openib BTL in Open MPI will be maintained, but no development is planned

• May implement a slimmed down openib BTL specifically for iWarp

• The openib BTL may be deprecated in next release stream (2.1/2.2)
Questions?
Thank You

OpenFabrics Software User Group Workshop

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