



OpenFabrics
Software
User Group
Workshop

Open MPI and Open Fabrics Software

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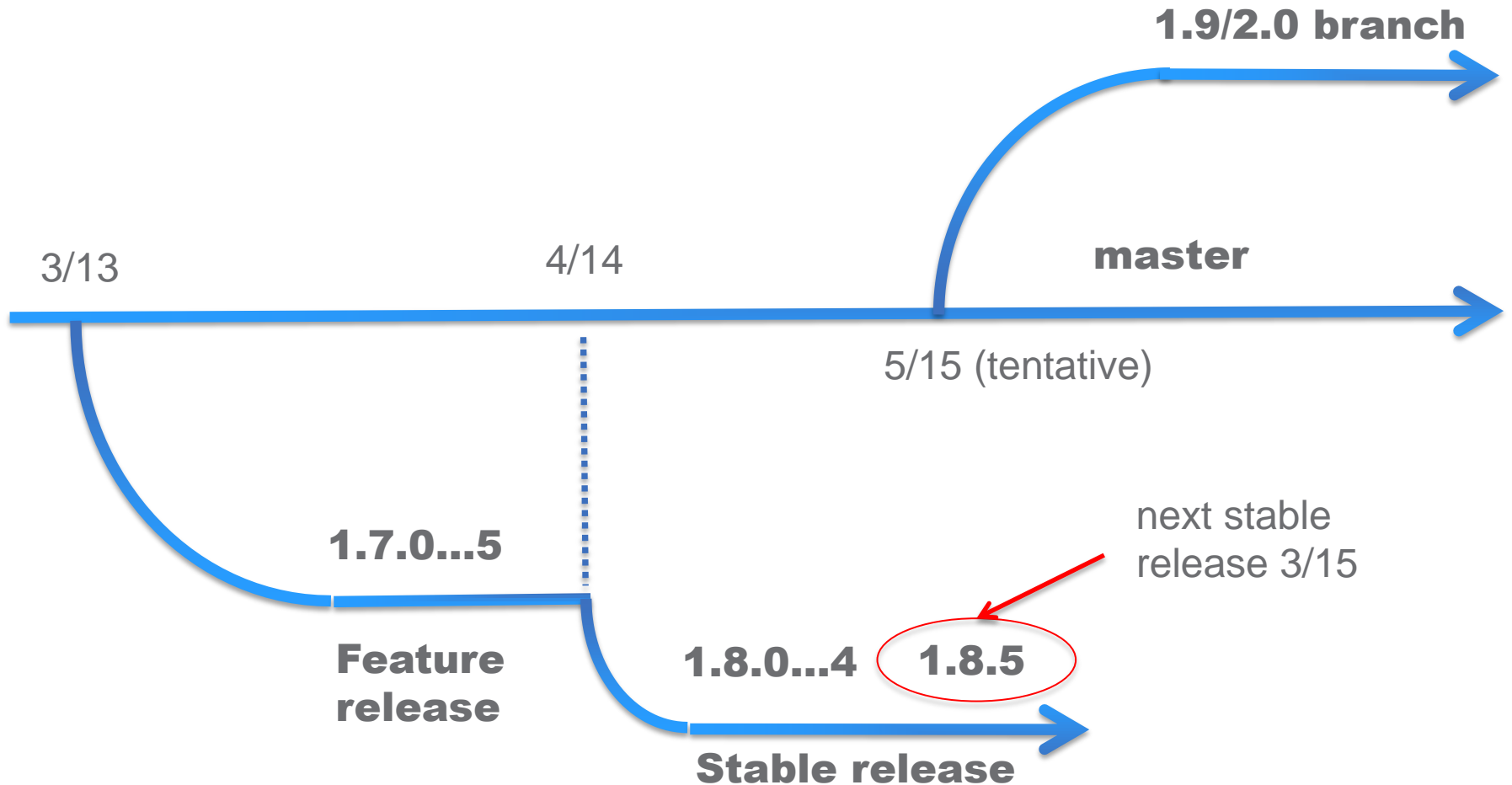
#OFSUserGroup

LA-UR-15-22242

Outline

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

Release Timeline



https://github.com/open-mpi/ompi



This repository Search

Explore Gist Blog Help



hppritch



open-mpi / ompi

Unwatch 41

Star 52

Fork 49

Open MPI main development repository

22,339 commits

1 branch

1 release

59 contributors



branch: master

ompi / +



Merge pull request #457 from hjelmn/mpit_fixes

	hjelmn authored 9 hours ago	latest commit ceba8ce856
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	grpcomm: fixed brks and rcd 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

Code

Issues 213

Pull requests 18

Wiki

Pulse

Graphs

HTTPS clone URL

https://github.com/

You can clone with HTTPS, SSH, or Subversion.

Clone in Desktop

Download ZIP

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 (?)

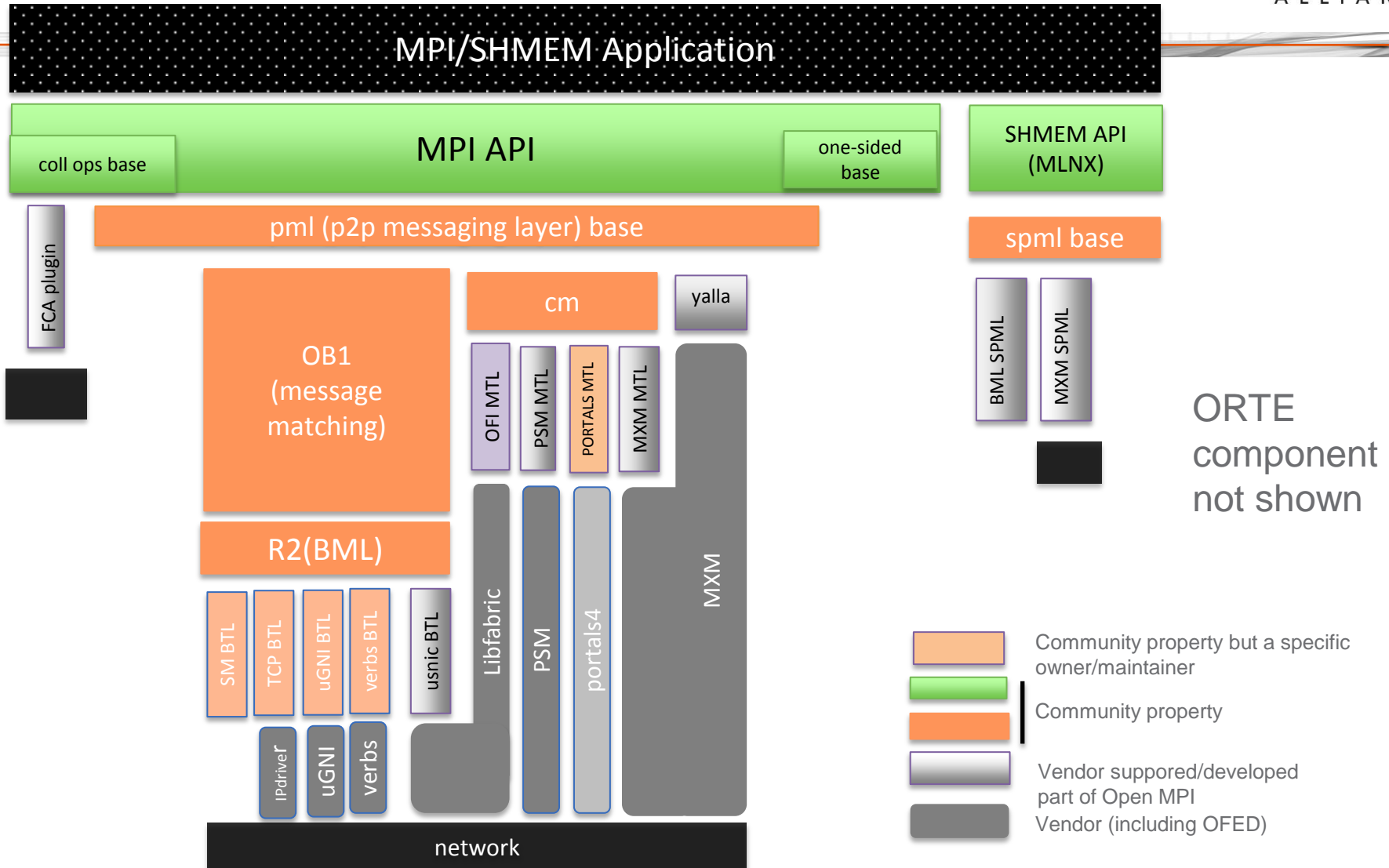
Open Fabrics and Open MPI

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

Open MPI Project Code Structure



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



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