



MPI FORUM

MPI Timeline Discussion
February 2020

Features for MPI 4.0

Already complete

- Persistent collectives
- FT Features
- MPI_T Events
- Assertions for message traffic to guide optimization
- Remove info key propagation on communicator duplication
- Deprecation of send cancel
- Smaller fixes and additions
- ISendRecv

In voting process

- HW Topologies: Guided and Unguided splits
- Partitioned Communication
- Non-blocking intro
- MPI Info before Init

Open Tickets

BigCount

- Status: Reading complete
- 1st vote in Munich

HW Topologies / Cartesian

- Status: Read this time, No-No changes to be voted on next time
- Would then have its 1st vote, 2nd vote in Austin
- If no-no fails, could have 1st vote in Austin

Terms and Conventions

- Status: read it fully this time, several changes
- Would come up for a no-no vote to T-2week Portland version
- Would then have its 1st vote, 2nd vote in Austin
- If no-no fails, could have 1st vote in Austin

Sessions

- Status: passed 1st vote
- On track for 2nd vote in Munich

Promises to the Community

Features

- **MPI BigCount (see above)**
- Persistent Collectives (done)
- Fault Tolerance (at least primitive support available)
- To a lesser extent
 - MPI_T Events (done)
 - Partitioned communication (in voting process)

Pre-February Meeting Timeline

- MPI 4.0 at SC 2020
- 2nd vote latest in Atlanta (before SC)
- Review Meeting in Austin
- 2nd votes in Munich
- Everything read here is out

Options and Consequences

~~We stick with this timeline~~

- ~~▪ Broken promise: BigCount, which will be in MPI 5.0 (much later)~~
- ~~▪ But: MPI 4.0 for SC2020~~

~~We stick with timeline and immediately add an MPI 4.1~~

- ~~▪ Broken promise: BigCount, but release candidate with BigCount at SC~~
- ~~▪ But: MPI 4.0 for SC2020~~
- ~~▪ Very odd and large addition in minor version~~

We delay MPI 4.0 for BigCount

- Broken promise: SC2020
- But: BigCount will be in MPI 4.0 / could/should have RC by SC20
- Issue: how long does it take? What else do we wait for? What is gating?
 - **Option 1: cut-off of 1st votes in Munich (meaning that T&C and HW Topo are unsure)**
 - ~~▪ Option 2: cut off of 1st votes in Austin, with extra meeting for 2nd votes in Atlanta~~
- **Decision: All MPI 4 features in by SC20 draft, BigCount as the only gating is**
- **Feature freeze before (!) Munich**

~~We add more meetings~~

- ~~▪ If we add enough, no broken promises~~
- ~~▪ More travel for all of us? Timing? Quorum?~~
- ~~▪ How close are we and what do we still push for? What is gating?~~

~~Other (viable) options?~~

MAJORITY
AGAINST

SEEN AS
STRANGE

DECISION

TOO
TRICKY

NOT
FEASIBLE

NOBODY HAD OTHER
IDEAS