

OpenSHMEM Committee Procedures
Version 1.0

The OpenSHMEM Committee

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Chapter 1

Terms and Conventions

1.1 Document Definitions

This document defines rules and conventions for the creation of:

- **OpenSHMEM Specification Document:** the main document defining the OpenSHMEM Application Programming Interface specification.

OpenSHMEM specification documents are marked with monotonically increasing version numbers using a major/minor version number scheme.

1.2 Definitions of Roles

The following defines the roles of the people or groups of people involved in the OpenSHMEM specification process:

- **OpenSHMEM Committee:** The group of contributors actively involved in the specification process by participation in official meetings, participation in OpenSHMEM working groups, and section committees.
- **OpenSHMEM Committee Chair:** Is responsible for organizing the agenda for official OpenSHMEM Committee meetings as well as the activities leading to the publication of the OpenSHMEM Specification. The Committee Chair also maintains the overall outside presence of the OpenSHMEM Committee. The OpenSHMEM committee chair role is filled through a regular ballot. Upon a successful vote on this ballot, the change goes into effect immediately.
- **OpenSHMEM Committee Secretary:** Is responsible for organizing and recording ballots as well as artifacts from the official OpenSHMEM Committee meetings. The OpenSHMEM committee secretary role is filled through a regular ballot. Upon a successful vote on this ballot, the change goes into effect immediately.
- **OpenSHMEM Specification Document Editor:** Is responsible for both maintaining the overall document and its repository, and for publishing newly ratified versions of the OpenSHMEM documents.
- **Section Committee Chair (sometimes referred to as “Section Author”):** Is responsible for implementing and organizing reviews for approved changes into their respective section(s).
- **Section Committee:** Assists the Section Committee Chair in implementing and reviewing changes for the respective sections.

- **Working Group:** Group of people working on individual, possibly cross-cutting topics that can lead to proposed changes for the OpenSHMEM Specification Document. Working groups are established and dissolved through an official ballot at an OpenSHMEM meeting. In order to enable rapid exploration of new topics, ballots to establish new working groups can be added to the agenda at any time before the first vote at a given meeting. However, committee members are encouraged to schedule such ballots at least two weeks prior to the start date of the official OpenSHMEM meeting.
- **Working Group Chair:** Is responsible for organizing the work in the Working Group, reporting to the OpenSHMEM Committee on progress in the working group, maintaining the outside presence of the Working Group, and organizing regular Working Group meetings.

1.3 Ballot Definitions

- **Official OpenSHMEM Committee Meeting:** An open meeting of the entire OpenSHMEM Committee. Attendance to the meeting is open to all organizations in the OpenSHMEM Committee as well as the general public.
- **Organization:** A business entity that sends one or more representatives to a official OpenSHMEM Committee meeting.
- **Overall Organization Eligibility (OOE):** An organization is generally eligible to vote if it has signed the OpenSHMEM contributor agreement and had one or more representatives present at two out of the last three official OpenSHMEM committee meetings (including the current meeting). Alternatively, an organization is generally eligible to vote if it has not signed the OpenSHMEM contributor agreement and had one or more representatives present at four of the last five official OpenSHMEM committee meetings (including the current meeting).
- **Meeting Quorum:** Quorum is established at a official OpenSHMEM Committee meeting when more than $\frac{2}{3}$ of OOE organizations are present for that meeting.
- **Individual Ballot Quorum:** Quorum is established for an individual ballot when more than $\frac{3}{4}$ of OOE organizations at the meeting cast a vote (vs. abstain). The number of OOE organizations is counted at the beginning of each ballot. Alternatively, the number of OOE organizations may be verified after each ballot to determine if quorum was met.

Chapter 2

Voting Rules

2.1 Intent

This chapter was written with the following goals in mind:

1. Provide clear, unambiguous definitions and procedures for voting on general text proposals, the final OpenSHMEM Specification Document, and changes to this document.
2. Enforce a high degree of consensus before text is accepted into the OpenSHMEM Specification Document.
3. Specify a process that ensures a high quality OpenSHMEM Specification Document and that allows for fixes to the OpenSHMEM Specification Document for issues found in final review stages.
4. Disallow arbitrary abuse of voting procedures.

This document only details official ballot voting definitions and procedures. Unofficial voting procedures, such as “straw” votes, are outside the scope of this document.

2.2 Procedures

2.2.1 Official Ballot Voting

Official ballot voting and formal readings occur only at official OpenSHMEM Committee meetings where a meeting quorum has been established.

All official ballots must be announced and scheduled at least two weeks prior (four weeks prior in case of votes for a final OpenSHMEM Specification Document) to the start date of the official OpenSHMEM Committee meeting at which they will be held. The dates/times for official ballots will not change after two weeks prior to the beginning of the meeting to allow attendees to schedule their attendance appropriately. As an exception, a meeting can be canceled with unanimous consent of all OOE organizations. Any business scheduled for the canceled meeting can be rescheduled for a future meeting, provided that it meets the scheduling constraints for that meeting at the time it is rescheduled (e.g. two or four weeks prior to the start of the meeting).

For each official ballot, each OOE organization is individually polled for their vote. The designated representative of an OOE organization may vote “yes,” vote “no,” or abstain from voting. Proxies are not permitted. If no representative of an OOE organization is present at the time of the ballot, that organization has implicitly abstained.

A ballot passes if:

1. The ballot meets the requirements for the individual ballot quorum, and

2. The number of “yes” votes is more than $\frac{3}{4}$ of the sum of “yes” and “no” votes.

Rationale. The first condition prevents large numbers of abstentions from skewing results. The second condition sets a high requirement for consensus before a ballot will pass. (*End of rationale.*)

Note that if a ballot fails to meet the required individual ballot quorum, the ballot can be re-cast one time at the same official OpenSHMEM Committee meeting. The ballot may also be deferred to a subsequent official OpenSHMEM Committee meeting. Specifically: failing to establish the individual ballot quorum does not mean that the ballot failed.

2.2.2 Proposals

Proposals use the following process to be accepted into an OpenSHMEM Specification Document:

1. Have a formal reading at a official OpenSHMEM Committee meeting where the meeting quorum has been met.
 - (a) The final text of the proposal to be read must be made publicly available via the general OpenSHMEM Committee broadcast email list at least two weeks prior to the start date of the official OpenSHMEM Committee meeting at which it is to be formally read.
 - (b) The formal reading must be scheduled on the official OpenSHMEM Committee meeting’s agenda at least two weeks prior to the meeting’s start date.
 - (c) There is no criteria for “passing” or “failing” a formal reading. It is up to the proposal’s author(s) to decide whether to bring the proposal up for a formal ballot at a subsequent meeting.
2. Pass an official ballot at a official OpenSHMEM Committee meeting.
 - (a) A proposal’s ballot can only be conducted after its formal reading.
 - (b) A proposal’s ballot must be conducted at a different official OpenSHMEM Committee meeting than which it was formally read.
3. Changes to proposal text after it was made available for the formal reading (i.e., at least two weeks prior to the start date of the official OpenSHMEM Committee meeting at which it was read) are permitted in some cases:
 - (a) After the formal reading and before the ballot, changes are permitted if the text delta is presented at a official OpenSHMEM Committee meeting and approved via a special formal ballot of OOE organizations at that meeting:
 - i. The ballot meets the requirements for the individual ballot quorum, and
 - ii. There are zero “no” votes.

Rationale. The first condition prevents a large number of abstentions. The second condition ensure that all non-abstaining organizations are unanimous in their consent of the text changes. (*End of rationale.*)

If the special ballot fails, the original text of the proposal is used.

- (b) After the ballot, text changes that do not change the semantics of the proposal are permitted with the unanimous consent of the relevant section committee(s).

Proposals may be voluntarily withdrawn at any time before the ballot passes.

Ballots may be deferred to a subsequent official OpenSHMEM Committee meeting in the following cases:

1. Before the ballot is conducted, the proposal author requests a deferral to the next official OpenSHMEM Committee meeting.

2. When the ballot is conducted, it fails to meet the individual ballot quorum.

If a proposal fails either its ballot, or if a proposal is withdrawn, it must perform the entire procedure again (i.e., start over with a formal reading). If a ballot fails to establish its per-ballot quorum, it may be re-cast within the timeframes specified above.

2.2.3 Process to Ratify an OpenSHMEM Specification Document

Once a series of changes are voted in by the OpenSHMEM Committee using the processes above, the Committee can publish a new revision of the OpenSHMEM Specification Document. This could be a new minor or major version of the standard; the process below applies to either. The Committee Chair, after consulting with the members of the Committee, initiates this process. In addition, the committee chair divides the specification document into sections and forms section committees.

The ratification process of any OpenSHMEM Committee Document starts after the end of the last official OpenSHMEM Committee meeting where changes were voted into that Document, and typically spans two subsequent official OpenSHMEM Committee meetings:

- Release Candidate Meeting (RCM)
- Final Ratification Meeting (FRM)

Ratification procedures are as follows:

1. Prior to four weeks before the start of the RCM:
 - Section Committee Chairs integrate approved changes and/or minor, non-semantic fixes to their sections into the OpenSHMEM Specification Document.
 - Section Committees review changes to their sections to ensure that approved changes have been integrated accurately into the OpenSHMEM Specification Document.
 - Section Committees may also find problems with approved changes that require further deliberation by the Committee. Such problems must be itemized for review by the Committee.
2. At least four weeks before the start of the RCM:
 - (a) Section Committee Chairs determine whether there have been any changes to their sections since the last published version.
 - (b) If there have been changes since the last published version, Section Committee Chairs publish the following for the Committee members to review:
 - Release Candidate Drafts (in PDF form) of their sections.
 - Changes to the section since the last published version (preferably in the form of a colored diff, or a marked up PDF, or some other easily-reviewable format showing the changes).
 - List of still-unresolved problems, including (but not limited to) problems with or mistakes in approved changes.
 - (c) If there have been no changes since the last published version, Section Committee Chairs inform the OpenSHMEM Committee Chair and the OpenSHMEM Specification Document Editor of this fact.
3. After all Section Committee Chairs have published their section drafts, but no later than three weeks before the start of the RCM:
 - (a) The OpenSHMEM Specification Document Editor publishes a Release Candidate Draft of the entire OpenSHMEM Specification Document (in PDF form), including all the changes from all Section Committees.

4. In the four-week window before the start of the RCM:
 - (a) OpenSHMEM Committee members review all the material published by the Section Committee Chairs and OpenSHMEM Specification Document Editor.
 - (b) Section Committees continue to work on still-unresolved issues. Any changes to text after the Section Committee Chairs publish their section drafts at the four-week window must be specifically discussed with the Committee at the RCM.
5. At the RCM:
 - (a) All Section Committee Chairs (or their designees) read their sections for the entire Committee. The focus of the readings is the changes that have occurred since the last released version and the last read version of a ratified proposal (as opposed to verbally reading the entire section word-for-word).
 - (b) Items that must be specifically itemized and discussed with the Committee during these readings include:
 - Any unresolved issues found in implementing approved changes.
 - Any technical issues found with approved changes or with the existing OpenSHMEM Specification Document.
 - Any changes that were made within four weeks of the beginning of the RCM.
 - (c) The OpenSHMEM Committee collectively reviews the entire Release Candidate Draft OpenSHMEM Specification Document, looking for problems such as (but not limited to):
 - Formatting and whitespace problems, spelling errors, and other typos. Such problems should be itemized and can be fixed at the meeting by Section Committees and/or the OpenSHMEM Specification Document Editor.
 - Logical inconsistencies in the overall document, or problems with approved changes.
 - (d) The OpenSHMEM Committee Chair compiles a list of all still-unresolved issues that will be fixed before this release of the OpenSHMEM Specification Document.
 - Committee members are encouraged to only allow “errata”-quality items on the list of still-unresolved issues. Larger items should either delay the ratification process or be deferred to a future version of the OpenSHMEM Specification Document.
 - (e) Per section 2.2.2, a ballot is conducted on ratifying the entire Release Candidate Draft OpenSHMEM Specification Document along with the listing of all still-unresolved issues and whitespace/spelling/typo fixes created in the previous steps.
 - If the ballot fails, the entire procedure must be repeated, possibly starting a new RCM at the next official meeting.
 - (f) The ratification can be “fast tracked” if the following conditions are true:
 - The ballot from (5e) at the same meeting passed.
 - The list of still-unresolved issues is empty.
 - The Committee resolved all other minor issues, such as formatting and whitespace problems, spelling errors, and other typos, and the OpenSHMEM Specification Document Editor has produced a new Release Candidate Document containing all these fixes.
 - After a new Release Candidate Document is available, the Committee decides, via special formal ballot, to “fast track” the ratification. The ballot passes if:
 - i. The ballot meets the requirements for the individual ballot quorum, and
 - ii. There are zero “no” votes.
 - (g) If all conditions are met, the ratification is fast tracked, steps 6) through (9b) are skipped, and step (9c) can be performed at the RCM.
6. Prior to four weeks before the start of the FRM:

- Section Committees and Working Groups work on resolving the issues in the list of open issues, integrate changes into the Release Candidate Document, and review any changes made.
7. At least four weeks before the start of the FRM:
 - Section Committee Chairs with changes to their sections since the RCM publish the final draft of their sections.
 - Section Committee Chairs publish the list of all changes made since the RCM, including changes made based on the list of open issues.
 8. After all Section Committee Chairs with changes to their sections have published updated section drafts, but no later than three weeks before the start of the FRM:
 - (a) The OpenSHMEM Specification Document Editor freezes the Release Candidate Document and publishes it to the OpenSHMEM Committee.
 9. At the FRM:
 - (a) The OpenSHMEM Committee Secretary conducts a ballot for each individual change that originated from the list of open issues decided upon at the RCM (and was completed before the four-week window). Ballots that fail must have their changes reverted.
 - (b) The OpenSHMEM Committee Secretary conducts a series of ballots for all other changes made since the RCM. In addition to the procedures listed in Section 2.2.1, if any “no” votes are recorded in the ballot for a given change, this change must be reverted.
 - (c) The OpenSHMEM Committee Chair compiles a list of all still-unresolved issues that could be fixed before this release of the OpenSHMEM Specification Document.
 - (d) If any issues remain on the list of still-unresolved issues, the OpenSHMEM Committee Secretary conducts a ballot to decide whether these issues delay ratification.
 - If the ballot passes, the next official OpenSHMEM Committee meeting will repeat this FRM; this process jumps back to step 6.
 - If the ballot fails, the Release Candidate Document remains unchanged.
 - (e) The OpenSHMEM Committee Secretary conducts a final ballot on the entire Document.
 - If the ballot passes, the OpenSHMEM Specification Document Editor adds a date stamp to the Document. As part of the licensing agreement with Silicon Graphics, Inc. (SGI), the Document is then submitted to SGI and OSSS for approval. Upon receiving approval, the OpenSHMEM Document Editor publishes it to the OpenSHMEM web site.
 - If the ballot fails, the entire ratification process must be repeated.

2.2.4 Changing These Rules

The procedure for changing these rules is essentially the same as for other proposals: publish the proposed change at least two weeks prior to a official OpenSHMEM Committee meeting and then pass one official ballot. The new rules take effect as soon as they are approved/voted in by the OpenSHMEM Committee.

Chapter 3

Suggestions for Proposers

The following are several suggestions to consider before raising a proposal to the OpenSHMEM Committee:

1. Socialize your proposal among all the relevant section committees, working groups, other relevant committee members, and real-world users. Get feedback and buy-in from as many people as possible.
2. Ensure that your proposal:
 - (a) Is not “syntactic sugar” for something that could be implemented outside of an OpenSHMEM implementation.
 - (b) Represents a “best practice.”
 - (c) Is useful on a wide variety of platforms / architectures, both today and in the conceivable future.
 - (d) Is not an ephemeral use case.
3. Be prepared to cite concrete use cases and/or applications that can use the functionality in your proposal.
4. Implementations of proposals are strongly encouraged, especially for “non-trivial” proposals. The most highly valued implementations are ones that:
 - (a) Show a performance or functionality benefit that cannot be accomplished outside of an OpenSHMEM implementation.
 - (b) Can be implemented on a wide variety of platforms / architectures.
5. Proposal quality issues:
 - (a) Use a similar writing style to the rest of the OpenSHMEM specification document.
 - (b) Get the proposal proofread by a native English speaker.
 - (c) Ensure that the proposal fits in well with the overall OpenSHMEM specification document.
6. Don’t let too much time elapse between the formal reading and ballots.

Chapter 4

Suggestions for Voters

The following are several suggestions to think about before voting on an OpenSHMEM proposal.

1. Actually read the proposal. Take time to think about it. Socialize it with your colleagues.
2. Is this proposal just “syntactic sugar” for something that could be implemented outside of an OpenSHMEM implementation?
3. Does this proposal represent a “best practice”?
4. Is this proposal useful on a wide variety of platforms / architectures, both today and in the conceivable future?
5. Are there applications that will use the functionality from this proposal?
6. Is the use case for this proposal ephemeral?
7. Implementation issues:
 - (a) Is there an implementation? Implementations may not be required, but should be highly valued, especially for “non-trivial” proposals.
 - (b) Does the implementation show a performance or functionality benefit that could not be implemented outside of an OpenSHMEM implementation?
 - (c) Is the proposal implementable on a wide variety of platforms / architectures?
8. Proposal quality issues:
 - (a) Is the proposal well-written?
 - (b) Is the proposal too young? E.g., does this proposal represent new work that may not yet have been completely vetted, thought through, or simply had time to mature?
 - (c) Is the proposal too old? E.g., has there been a significant time lapse between its reading and/or ballots? (if so, why?)