

Space Systems Command MOSA Interface Standards Alliance
Standards Development Process

Revision Log

Each release of this document supersedes all previously released versions. The change history log lists all significant changes made to the document since its initial release.

<u>Revision Date</u>	<u>Summary of Changes</u>
August 2022	V1 of Bylaws ratified by Alliance Board
September 2022	V1.1 Updated to reflect alias name
December 2022	V1.2: Streamlined and clarified the approval process for Standards and Revisions thereof
September 2023	V1.3: Updated to conform with updates made in the Bylaws
June 2024	V1.4: Updated to include minor additional details and a process flow diagram for visual clarity
September 2024	V1.5: Updated to include mandatory initial steps for all committees

About this Document

This document is intended to provide information relating to the development and use of voluntary consensus Standards developed by the Space Systems Command Modular Open System Approach (MOSA) Interface Standards Alliance, alias Space Systems MOSA Interface Standards Alliance (hereinafter “Alliance”). Alliance Standards are developed in collaboration with small but effective groups of industry subject matter experts (SMEs). This process brings together volunteers from government, suppliers, and manufacturers

representing varied viewpoints and interests to achieve a comprehensive knowledgebase from which to develop standards at an accelerated pace.

The Alliance establishes rules to promote fairness in development of consensus. IEEE-ISTO serves as a neutral facilitator to oversee administration of the process and adherence to Alliance Bylaws and this document describes the Standards Development Process.

This Alliance does not independently test, evaluate, or validate the accuracy of any information contained in the Alliance Standards.

Standards Disclaimer

The Alliance disclaims any liability for any damages of any nature whatsoever, whether special, direct or indirect, consequential or compensatory, directly or indirectly resulting from the use of, or reliance on these Alliance Standards. The Alliance also makes no guarantee or warranty as to the completeness or accuracy of any information published within the Standards.

In issuing Industry Standards, the Alliance is not undertaking to render professional or other services on behalf of any entity or person. Anyone using these documents should rely on his/her independent judgment or, as appropriate, seek the advice of competent professionals in determining the exercise of reasonable care in any given Standards implementation.

Space Systems MOSA Interface Standards Alliance Standards Development Process

1. A need for a new or revised standard is identified and the proposed standard is submitted via a [Standards Change Request](#) (SCR) form which is available electronically on the Alliance web page.
2. The IEEE-ISTO Program Office will initially review the SCR proposer's email address for legitimacy (e.g., rejecting email addresses like MickeyMouse@yahoo.com or GobbeldyGook@gmail.com) as well as the completeness and appropriateness the information provided in the SCR form (i.e., no nonsense or unintelligible type of content, or profanity-laced sentences).
 - a. If the SCR proposer's email address appears to be legitimate and the SCR content is intelligible, it is forwarded to the Space Systems Command SSC/BZEI Program Office.
 - b. If the email address does not appear to be legitimate or the content is unintelligible, the IEEE-ISTO Program Office will either reject the SCR as spam or if deemed appropriate (e.g., the SCR form was incomplete), inform the proposer that additional information is needed.
3. The SSC/BZEI Program Office will cursorily review the technical merit of the SCR to determine if the proposal satisfies a need of the Alliance and is not duplicative of other efforts.

- a. If the SCR appears to have technical merit, the proposer will be provided an Entry Criteria Questionnaire.

NOTE: The purpose of the questionnaire is to elicit additional information from the proposer that could help the Stakeholder Advisory Council (SAC) more thoroughly determine the technical merit of the proposal and appropriateness for possible application to, in alphabetical order, NASA, NRO, and SSC (hereafter referred to as the Big Three) space systems.

- b. If the SCR does not appear to have technical merit the proposer will be informed and given an opportunity to clarify and resubmit their SCR.
4. The Proposer provides the completed or revised Entry Criteria Questionnaire to the SSC/BZEI.
 5. The SSC/BZEI sends the completed questionnaire to appropriate subject matter experts (SMEs) within the Government team (i.e., FFRDC, UARC, SETA engineers) for a thorough technical assessment.
 6. The SME peer review team reviews and comments upon the completed questionnaire.
 - a. If there are concerns or issues, the SME peer review team may need to circle back with the Proposer for clarifications to the Entry Criteria Questionnaire.
 7. The completed Entry Criteria Questionnaire, technical assessment, and comment resolution matrix (CRM) with the Government SME comments and dispositions is sent to the SAC. The SAC will be given two weeks to review and vote on the proposed SCR.
 - a. If the SAC has comments on the technical merits of the proposal, the comments will be dispositioned by the Government SMEs who may need to contact the Proposer for additional clarifications.
 - b. The Government team SMEs will have two weeks to disposition the SAC comments.
 - c. The final CRM is delivered back to the SAC who will have another two weeks to review and vote on approval of the SCR.
 8. Upon consensus by the SAC, the Alliance roadmap will be revised to include the proposed Standard/Revision and an associated summary chart will be prepared to take to the Executive Board.
 9. The Executive Board will review and vote on acceptance of the summary recommendation and updated Alliance roadmap.
 - a. If the Executive Board approves by consensus the revised roadmap, a new Committee will be instantiated.
 - b. If the Executive Board does not approve by consensus the revised roadmap, the Proposer will be informed, and the process stops.
 10. To stand up a Committee, the SAC or their Government support team will identify a Government team SME Committee Chair, Technical Advisors, and Committee Managers.
 11. The Committee Chair will develop an initial draft of the Committee Charter with a clearly stated objective for the Committee, based on the approved Entry Criteria Questionnaire, and an initial Preliminary schedule of anticipated Committee minimum viable product (MVP) deliveries.
 12. The Committee Stand-up package with the Stand-up checklist, Draft Committee Charter, and Preliminary Schedule are delivered to the SAC for formal approval to kick-off the committee.
 - a. The SAC must approve the stated objective for the Committee and Preliminary Schedule because it is the Government's responsibility to set the objective (and need date, if

- appropriate) for the Standard/Revision and it is the committee's responsibility to then determine the scope and content of the Standard/Revision.
- b. If the SAC does not approve the Committee kick-off, discussion(s) with the Committee Chair will be coordinated as often as needed to resolve the SAC concerns to their satisfaction.
13. When the SAC approves the Committee Charter and Schedule, the Committee Manager will coordinate the kick-off and all subsequent Committee meetings.
 14. The Committee will develop/revise the Standard via voluntary consensus in accordance with the Alliance bylaws.
 15. When the Committee determines via consensus that they have met their exit criteria, the final draft package is sent to the SAC. The final draft package consists of the final draft of the Standards, a summary chart explaining their Standard, a list of major issues, if any, their resolution, and lessons learned, if any.
 16. The SAC reviews the final draft package for approval to publish.
 - a. Optionally, the Committee Chair is encouraged to additionally make the final draft available to member companies who did not participate in the committee but who have the appropriate SME expertise to provide meaningful comments.
 - b. If the SAC approves the final draft, the Standard/Revision is added to the Alliance library.
 - c. If the SAC does not approve the final draft, it is sent back to the Committee Chair, who must work with the Committee to ensure all review comments from the SAC (and optionally from relevant member company SMEs) are dispositioned.
 - d. This process will loop until the SAC is satisfied with the dispositions.
 17. Alliance products approved for publication are uploaded to and configuration managed in the Alliance Library.
 18. There may be some cases in which a Funding Organization (i.e., a program office, other agency, or commercial provider) may fund the validation of the Standard/Revision. In those instances, the appropriate prototyping/testing will be performed.
 19. A Prototype/Test Report will be generated.
 - a. If requirement compliance issues were identified during the validation process, the SAC will reconvene the previous Committee, or a new one, to resolve/correct the issues based on the findings of the prototype/test effort.
 - b. If no issues are found, the Standard is considered validated.
 20. The Validated Standard is marked as validated, with the validation date, on the cover page of the Standard.
 - a. Upon approval by the SAC, the Validated Standard (and associated test reports) are placed under configuration management in the Alliance Library.

*Notes

- 1) Any and all Revisions of the Alliance Products (e.g., Standards, Specifications, Guides, Guidebooks, Tailoring Guides) will be at the discretion of the Stakeholder Advisory Council.
- 2) Controlled Unclassified Information (CUI) and Classified material will be maintained on a secure, government database.

- 3) Alliance member access to any CUI or Classified Alliance Standards and materials is subject to US Government security requirements.

Space Systems MOSA Interface Standards Alliance Committee Charter

Committee Objective: Set by the Stakeholder Advisory Council

Committee Responsibility: Determine, by consensus, the scope and content of the Standard(s) that meet the Committee Objective

Standard Operating Procedure:

Definition: A standard operating procedure (SOP) is a set of step-by-step instructions for performing a routine activity. SOPs should be followed the same way every time to ensure consistency and objectivity in its application. [Derived from [What Is Standard Operating Procedure \(SOP\)? | Writing Guide and Definition from TechTarget](#)]

All IEEE-ISTO Space Systems MOSA Interface Standards Alliance committees shall follow the following initial steps:

1. Determine whether there are any existing Standards that can be applicable to the Committee's purpose/objective.
2. If applicable existing Standard(s) are identified the Committee will determine whether the Standard(s) should be used as-is or tailored to enable interoperability across the Big Three (NASA, NRO, SSC) Space Systems.
 - a. If the consensus is to use the existing Standard(s) as-is, the Committee will send the proposal, with rationale to the Stakeholder Advisory Council for approval.
 - b. If the consensus is to tailor the existing Standard(s), the committee will determine the scope and content of the tailoring guide.
 - i. Tailoring is a process by which individual requirements of a Standard are evaluated and made applicable for a specific project or purpose. [Derived from [What is Tailoring of Standards | IGI Global \(igi-global.com\)](#)]
3. If there are no suitable existing Standards, the Committee will begin work on the development of a new Standard.
 - a. The committee will develop one or more use cases on which to base the requirements within the new Standard, and to determine the number and schedule of the Committee's minimum viable product (MVP) deliveries.
 - i. Each MVP shall have a six-month Sprint period.
 - ii. Each subsequent MVP shall not supersede the previous MVP deliveries.
 - iii. The delivery of the final MVP completes the whole Standard
 - b. NOTE: The committee may develop one or more use cases to formulate the down-select criteria for existing applicable Standards.

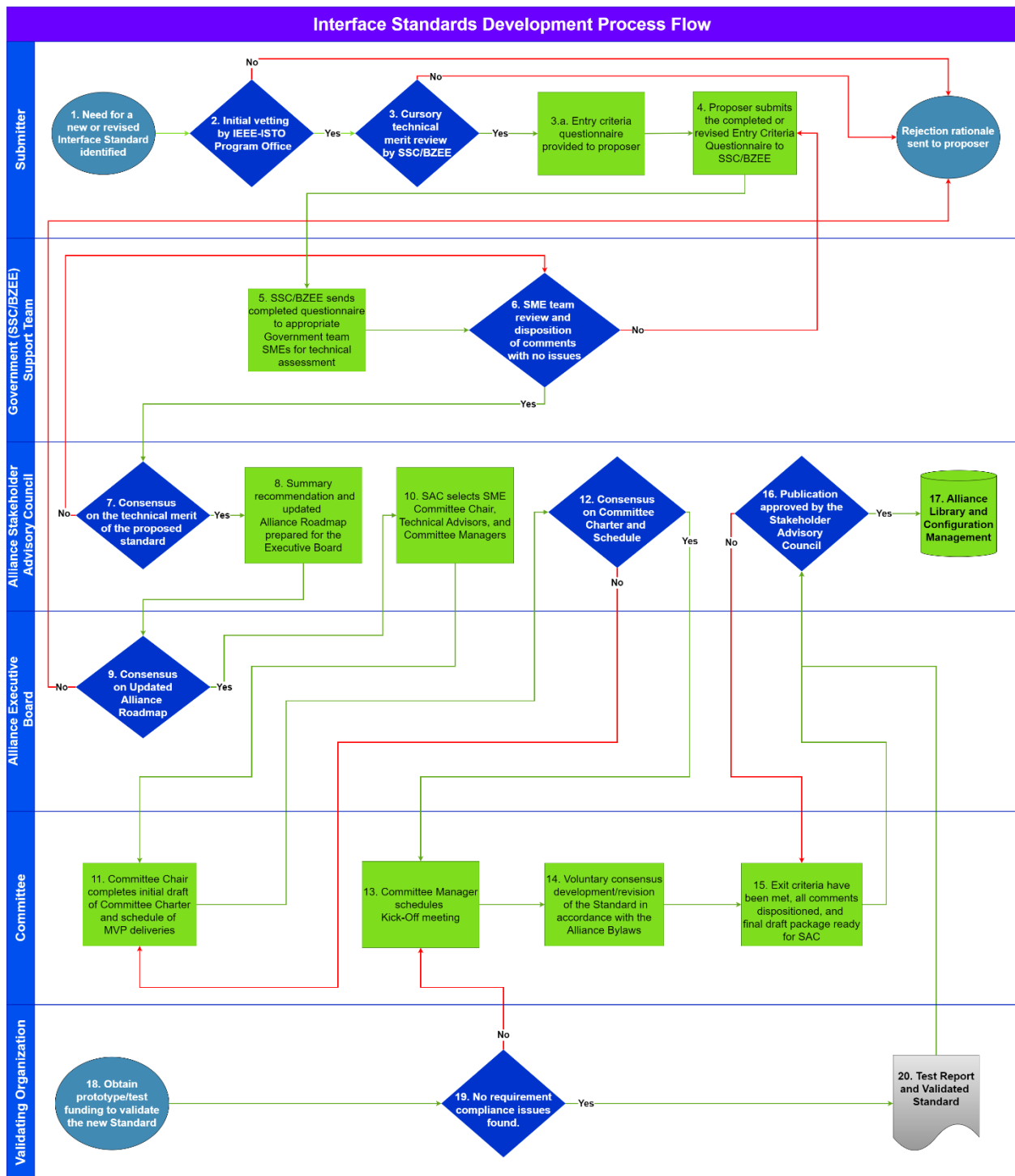


Figure 1. Standard Development Process Flow Diagram