



SNIA Technical Work Group Policies and Procedures

SNIA Technical Council

snia-tc@snia.org

Revision 4.1

June 23, 2009

SNIA Technical Work Group Policies & Procedures

Revision History

Revision	Date	Sections	Originator:	Comments
1.00	March 1, 2002	All	Technical Director and Technical Council	First Release
2.00 Trial-Use DRAFT	March 17, 2005	All	Technical Council Managing Director and Technical Council	Added IP Policy changes. Overhauled several sections.
2.1	May 20, 2005	All	Technical Council Managing Director and Technical Council	Minor changes based upon comments received during the trial use.
3.0	March 20, 2006	All	Roger Cummings, Dave Thiel, Arnold Jones	Reworked definitions & document classifications for harmony with IP policy. Separated document classifications from processes. Added Process definitions, including Approval and Standardization. Replaced TWG with TWB where appropriate.
3.1	October 29, 2006	6.5	Technical Council Managing Director and Technical Council	Created flow diagrams for the technical work approval processes. Reworked the text to match the flow diagrams.
3.2	April 11, 2007	6.5.5	Technical Council Managing Director and Technical Council	Updated Standards Process flow diagrams and associated text.
4.0	July 30, 2007	All	David Thiel, Arnold Jones, Jim Carlson, Technical Council	Add software development. Add "internal use" document classification. Many miscellaneous changes.

SNIA Technical Work Group Policies & Procedures

4.1	June 23, 2009	All	David Thiel, Don Deel	Strengthened Membership notification of SNIA Architecture/Software Votes and posting of results of final Call for IP. Improved labeling of Internal Use Draft documents and software. Added caveat regarding Kavi document sharing. Changed Periodic IP Reviews to occur every ~6 months, rather than at specific times in the year. Made "Other Software" work items not allowed at this time. Extensive cleanup done to improve layout, consistency and readability. All diagrams updated to be more in sync with the text. Corrected issues with the Index and added the newer SNIA logo.
-----	---------------	-----	-----------------------	--

Suggestions for changes or modifications to this document should be sent to the SNIA Technical Council Managing Director at tcmd@snia.org.

SNIA Technical Work Group Policies & Procedures

The SNIA hereby grants permission for individuals to use this document for personal use only, and for corporations and other business entities to use this document for internal use only (including internal copying, distribution, and display) provided that:

1. Any text, diagram, chart, table or definition reproduced must be reproduced in its entirety with no alteration, and,
2. Any document, printed or electronic, in which material from this document (or any portion hereof) is reproduced must acknowledge the SNIA copyright on that material, and must credit the SNIA for granting permission for its reuse.

Other than as explicitly provided above, you may not make any commercial use of this document, sell any portion of this document, or distribute this document to third parties. All rights not explicitly granted are expressly reserved to SNIA.

Permission to use this document for purposes other than those enumerated above may be requested by e-mailing snia-tc@snia.org; please include the identity of the requesting individual and/or company and a brief description of the purpose, nature, and scope of the requested use.

Copyright © 2002 - 2009 Storage Networking Industry Association.

SNIA Technical Work Group Policies & Procedures

Table of Contents

1	INTRODUCTION	1
1.1	REFERENCES	1
1.1.1	<i>SNIA Documents that take precedence over this document.....</i>	<i>1</i>
1.1.2	<i>SNIA Documents that are subordinate to this document</i>	<i>1</i>
1.2	DEFINITIONS AND ABBREVIATIONS	1
1.3	DOCUMENT TERMINOLOGY	3
2	TECHNICAL WORK GROUPS	4
2.1	FORMATION.....	4
2.2	CHARTER AND PROGRAM OF WORK	4
2.3	WORK ITEMS	5
2.3.1	<i>Work Item Types.....</i>	<i>5</i>
2.3.1.1	SNIA Architecture Work Item.....	5
2.3.1.2	SNIA Software Work Item	6
2.3.1.3	Document Work Item.....	6
2.3.1.4	Other Software Work Item.....	6
2.3.2	<i>Work Item Approval Process.....</i>	<i>6</i>
2.3.2.1	Document Work Items and SNIA Architecture Work Items	6
2.3.2.2	SNIA Software Work Items and Other Software Work Items.....	7
2.3.3	<i>Work Item Status</i>	<i>7</i>
2.4	CHAIRS	7
2.5	SECRETARY	8
3	TWG MEMBERSHIP	9
3.1	TWG INDUSTRY EXPERT	9
4	TWG MEETINGS.....	10
4.1	MEETING ADMISSION REQUIREMENTS	10
4.2	SNIA SYMPOSIA AND SNIA TECHNICAL SYMPOSIA.....	10
4.3	ADDITIONAL MEETINGS.....	10
4.4	ANNOUNCEMENTS AND CANCELLATIONS	10
4.5	INFORMAL MEETINGS	11
4.6	AGENDA.....	11
4.7	ATTENDANCE TRACKING.....	11
4.8	MINUTES.....	11
4.9	INTELLECTUAL PROPERTY ANNOUNCEMENTS	12
4.10	JOINT MEETINGS	12
5	TWG SUB GROUPS	13
5.1	FORMATION AND STRUCTURE	13
5.2	OPERATION	13

SNIA Technical Work Group Policies & Procedures

6	DEVELOPMENT AND RELEASE OF SNIA ARCHITECTURE AND DOCUMENT TECHNICAL WORK.....	15
6.1	DEFINITIONS.....	15
6.2	COPYRIGHTS AND DISCLAIMERS.....	15
6.3	SNIA TECHNICAL DOCUMENT CLASSIFICATIONS	15
6.3.1	<i>In-Development Document Classifications.....</i>	<i>16</i>
6.3.1.1	Internal Use Draft	16
6.3.1.2	Working Draft	16
6.3.1.3	Trial-Use Draft.....	16
6.3.2	<i>Completed Document Classifications</i>	<i>17</i>
6.3.2.1	<Base TWB> Proposal.....	17
6.3.2.2	SNIA Technical Proposal	17
6.3.2.3	SNIA Technical Position.....	18
6.4	SNIA TECHNICAL DOCUMENT APPROVAL PROCESSES	18
6.4.1	<i>Release Process.....</i>	<i>19</i>
6.4.2	<i>IP Review Process.....</i>	<i>21</i>
6.4.2.1	Periodic IP Review Process	21
6.4.2.2	Final Document IP Review Process	21
6.4.3	<i>Technical Approval Process.....</i>	<i>24</i>
6.4.4	<i>Architecture Approval Process.....</i>	<i>26</i>
6.4.5	<i>SNIA Standardization Process.....</i>	<i>30</i>
6.4.5.1	INCITS Project Proposal Process	32
6.4.5.2	ANSI Approval Process.....	32
6.4.5.3	ISO Approval Process.....	34
6.4.5.4	Comment Resolution Process.....	37
6.4.6	<i>Errata Review Process</i>	<i>38</i>
6.5	TEST SPECIFICATIONS.....	41
7	DEVELOPMENT AND RELEASE OF SNIA SOFTWARE TECHNICAL WORK ..	42
7.1	DEFINITIONS.....	42
7.2	LICENSES, COPYRIGHTS AND DISCLAIMERS.....	42
7.3	SOFTWARE PACKAGE CLASSIFICATIONS	43
7.3.1	<i>In-Development Software Package Classifications.....</i>	<i>43</i>
7.3.1.1	Internal Use Draft	43
7.3.1.2	Working Draft	43
7.3.1.3	Trial-Use Draft (analogous to beta test)	44
7.3.2	<i>Completed Software Package Classifications.....</i>	<i>44</i>
7.3.2.1	SNIA Technical Position.....	44
7.4	SOFTWARE PACKAGE APPROVAL PROCESSES	45
7.4.1	<i>Software Release Process.....</i>	<i>45</i>
7.4.2	<i>IP Review Process.....</i>	<i>47</i>
7.4.2.1	Periodic IP Review	48
7.4.2.2	Final SNIA Software IP Review Process	48

SNIA Technical Work Group Policies & Procedures

7.4.3	SNIA Software Approval Process	49
7.4.4	Software Errata Review Process	53
7.4.4.1	Software Errata Rationale	53
7.4.4.2	Software Errata Review	54
7.5	TESTS AND TEST SPECIFICATIONS.....	55
8	DEVELOPMENT AND RELEASE OF OTHER SOFTWARE TECHNICAL WORK	56
9	SNIA ARCHITECTURE AND SNIA SOFTWARE INTELLECTUAL PROPERTY PROCESS	57
9.1	DESIGNATION AS SNIA ARCHITECTURE OR SNIA SOFTWARE.....	57
9.2	IP REVIEW	57
9.2.1	Periodic IP Review.....	57
9.2.2	Final IP Review.....	57
9.2.3	IP Review follow-up	57
10	MEETING ATTENDANCE.....	58
10.1	REPRESENTATIVE	58
10.2	ACTIVE TWG MEMBER.....	58
10.3	ACTIVE TWG VOTING MEMBER	58
10.4	CHAIRS ATTENDANCE	58
10.5	QUORUM.....	58
11	TWG VOTING.....	59
11.1	OFFICIAL VOTING PROCESS.....	59
11.2	OFFICIAL VOTE REQUIRED.....	59
11.3	GRANT AUTHORITY OF AN OFFICIAL VOTE.....	60
11.4	ELECTRONIC VOTES.....	60
11.5	ROUGH CONSENSUS.....	61
11.6	APPEAL PROCESS.....	61
12	SNIA WEB SITE	62
12.1	AUTOMATIC OPT-IN	62
12.2	TWG ONLINE STATUS.....	62
12.3	DOCUMENT SHARING	62
13	TECHNICAL COUNCIL MANAGING DIRECTOR COMMUNICATION	63
13.1	REQUIRED NOTIFICATION	63
14	TECHNICAL WORK GROUP REVIEWS	64
14.1	“FOR CAUSE” REVIEW.....	64
14.1.1	“For Cause” Review Triggers	64
14.1.2	Limitations Under Review	64
14.1.3	Sub Group Review.....	64
14.2	REGULAR REVIEW	64

SNIA Technical Work Group Policies & Procedures

15	POLICIES AND GUIDELINES FOR SOFTWARE DEVELOPMENT	66
15.1	GENERAL POLICIES AND GUIDELINES FOR ALL SOFTWARE DEVELOPMENT	66
15.2	POLICIES AND GUIDELINES FOR ALL SOFTWARE DEVELOPMENT WITHIN TWGs	66
15.3	POLICIES AND GUIDELINES FOR SNIA SOFTWARE DEVELOPMENT	66
15.4	POLICIES AND GUIDELINES FOR OTHER SOFTWARE DEVELOPMENT	68
16	SNIA RESOURCES FOR TWGS	69
16.1	EMAIL REFLECTORS	69
16.2	WEB SITE AREA	69
16.3	SNIA STAFF SUPPORT	69
16.4	TECHNICAL COUNCIL	69
16.5	FEEDBACK PORTAL	69
17	INDEX	70

SNIA Technical Work Group Policies & Procedures

1 Introduction

The primary objective of this document is to establish fair and consistent policies and procedures for the operation of SNIA Technical Work Groups. This document is owned and maintained by the SNIA Technical Council under the provisions of the Policies and Procedures of the SNIA.

This document is intended for use by all Members and Participants of the Storage Networking Industry Association.

1.1 References

1.1.1 SNIA Documents that take precedence over this document

1. "Policies and Procedures of the Storage Networking Industry Association" (SNIA P&P).
This document was written under V4.13 of the SNIA P&P.
2. "Storage Networking Industry Association (SNIA) Intellectual Property Policy" (SNIA IP Policy).
This document was written under Version 3.0 of the SNIA IP Policy.
3. "Bylaws of the Storage Networking Industry Association" (SNIA Bylaws).
This document was written under the March 31, 2009 version of the SNIA Bylaws.

The current, authoritative version of each of the above documents is available at http://www.snia.org/about/corporate_info/documents/.

1.1.2 SNIA Documents that are subordinate to this document

"Guidelines for Approval of SNIA Technical Work Groups", Revision Date September 22, 2005".

This document is available at <http://www.snia.org/members/twg/>.

1.2 Definitions and Abbreviations

Charter

A short text that clearly explains the purpose and objectives of a Technical Work Group (TWG). The Charter conveys the scope, relevance and uniqueness of the TWG, and thereby constrains the TWG activities to only those fulfilling the scope. The Charter acts as a "summary" introduction to the TWG for SNIA membership, other TWGs, and outside interested parties.

MEMBERS

SNIA Voting Members and SNIA Participants, as defined in the SNIA IP Policy.

SNIA Technical Work Group Policies & Procedures

Official Vote	A TWG vote that is required to be conducted as defined in section 11.1.
Program of Work	A list of <i>Work Items</i> that a Technical Working Body has been tasked to perform.
Representative	A <i>Representative</i> is an individual who is attending a meeting on behalf of a MEMBER, as defined in the SNIA IP Policy.
SNIA	Storage Networking Industry Association
SNIA Architecture	As defined in the SNIA IP Policy, Technical Work done by a TWG that is formally designated as SNIA Architecture by the SNIA Board.
SNIA Software	As defined in the SNIA IP Policy, Technical Work done by a TWG that is formally designated as SNIA Software by the SNIA Board.
SNIA Technical Document	Technical Work in document form that has completed one or more of the document approval processes defined in section 6.4.
SNIA Work-in-Progress	As defined in the SNIA IP Policy, Technical Work in draft form that the SNIA Board might ultimately consider for formal designation as SNIA Architecture or SNIA Software.
Software Module	An individual item of software code, binary, executable, etc.; typically organized as a single file.
Software Package	A collection of software modules and associated documentation.
Technical Work	As defined in the SNIA IP Policy, Technical Work means Work which is developed, created, modified, or accepted by a Technical Working Body within the Charter and scope of its activities. Technical Work may include Single Work, Joint Work, and Contributed Work, as defined in the SNIA IP Policy.
Technical Working Body	As defined in the SNIA Policies and Procedures, a group within the SNIA whose primary focus is on technical development activities. The Technical Council (TC), all Technical Work Groups (TWGs),

SNIA Technical Work Group Policies & Procedures

and all Technical Steering Groups (TSGs) are considered Technical Working Bodies.

TC	SNIA Technical Council
TCMD	SNIA Technical Council Managing Director
TWB	Technical Working Body
TWG	SNIA Technical Work Group. Sometimes referred to as SNIA Technical Working Group.
TWG members	The SNIA Voting Members and Participants, as defined in the SNIA IP Policy, participating in a TWG.
Work	As defined in the SNIA IP Policy, Work means architecture, specifications, proposed standards, information, data, materials, publications, white papers, presentations, proposals, documents, software, firmware, computer programs, and code, but does not include hardware or mask works. Additionally, Work specifically includes architecture and specifications which are based on the ideas in software developed in or contributed to a TWG for use in SNIA Software.
Work Item	Technical Work that is a named constituent of the Program of Work of a TWB. Where the result of a Work Item is SNIA Work-in-Progress, the definition of the Work Item will include the intended disposition of the material and a rough schedule.

1.3 Document Terminology

May	Indicates an action that is optional.
Optional	Describes an action that may or may not be performed. If performed, the action shall be performed as described.
Shall	Indicates an action that is mandatory and must be performed.
Should	Indicates an action that is optional, but it is <i>strongly</i> recommended that the action be taken.

SNIA Technical Work Group Policies & Procedures

2 Technical Work Groups

Technical Work Groups (TWGs) are subject-focused groups of SNIA Members and SNIA Participants, chartered by the SNIA to carry out the original technical work of the organization.

Each TWG is provided with resources by the SNIA to assist the TWG in the execution of its Charter and the publication and promotion of TWG developed materials. For example, a TWG may receive an e-mail reflector, web space, coordination of face-to-face Work Group meetings, and other benefits of SNIA support.

Each TWG is conditionally chartered by the SNIA Technical Council (TC), and is expected to produce meaningful material of technical merit. The TC is responsible for the approval of new TWG proposals, oversight of chartered TWG activities, and review of ongoing TWG relevancy.

Bounded by a program of work, a TWG has a finite lifetime and may be disbanded by the TC when its Work Items have been completed.

2.1 Formation

The process for the formation of a TWG is defined in the document *“Guidelines for Approval of SNIA Technical Work Groups”*. Formation of a new TWG requires the approval of the TC.

To assist the formation of new TWGs, the TC may grant Provisional Approval to a proposed TWG, creating a Provisional TWG. The primary purpose of a Provisional TWG is to complete the formation process by socializing its agenda, recruiting members, refining its proposed Charter, and planning Work Items to be proposed. A Provisional TWG is not considered a formal TWG as defined by the SNIA IP Policy and therefore does not invoke provisions of the SNIA IP Policy relating to SNIA Architecture and SNIA Software. As a consequence, a Provisional TWG shall not perform substantive technical work.

2.2 Charter and Program of Work

When a TWG is formed, the TC approves an initial *Charter* and *Program of Work* containing *Work Items*. See the document *“Guidelines for Approval of SNIA Technical Work Groups”* for additional information.

The TWG is responsible for keeping its *Charter* and its *Program of Work* up to date, including the status of all Work Items. This responsibility includes bringing proposed updates to the TC and keeping this information up to date in the appropriate section on the SNIA web site.

Any additions and/or modifications to a TWG’s approved *Charter* or *Program of Work* shall go through the Work Item Approval Process (section 2.3.2). This includes but is not limited to the following:

- Modifications to the definitions of previously approved Work Items
- Creation of new Work Items

SNIA Technical Work Group Policies & Procedures

- Deletion of incomplete Work Items

Whenever a TWG proposes changing its Charter or adding, deleting or modifying a Work Item, the TWG shall poll its members to ascertain whether the proposed change may cause TWG members to leave the group. The TWG shall also make good faith efforts to ascertain whether the proposed change will prevent SNIA members who are considering joining the TWG from actually joining the TWG. This information shall be considered by the TWG in deciding whether or not to forward the proposal to the TC. This information shall also be provided to the TC for consideration in its deliberations. The intent of this provision is not to provide each TWG member with a veto over TWG activities; the intent is to enable fully informed decisions that avoid unconsidered side-effects.

Proposals to change the Charter of a TWG, along with the poll results, must be presented to the TC and approved by the TC before taking effect.

2.3 Work Items

Each TWG must have one or more defined Work Items that collectively are the Program of Work of the TWG. A Work Item is a complete deliverable (or related set of complete deliverables) toward which the TWG is actively making progress. Each Work Item must be within the scope of the Charter of the TWG.

The statement of each Work Item must include:

- Name (by which it is referenced)
- Scoping statement that describes the Work Item
- Deliverables
- Target schedule date(s)
- Work Item type
- Intended disposition of this Work Item when complete

2.3.1 Work Item Types

Each Work Item must be of one of the following types. These types of Work Items are defined because different processes apply to Work Items of different types.

2.3.1.1 SNIA Architecture Work Item

A Work Item is of SNIA Architecture type if it may have as a deliverable (or influence the technical content of a deliverable) a SNIA Architecture or a de-jure standard.

The presence of a SNIA Architecture Work Item on the Program of Work of a TWG triggers specific provisions of the SNIA IP Policy for the TWG.

SNIA Technical Work Group Policies & Procedures

2.3.1.2 SNIA Software Work Item

A Work Item is of SNIA Software type if it may have SNIA Software as a deliverable or if it may significantly influence the technical content of SNIA Software. A SNIA Software Work Item may include associated documentation.

Each member of a TWG with SNIA Software Work Items must be a Representative of a MEMBER who has subscribed to the SNIA IP Policy V3.0 or later.

The presence of a SNIA Software Work Item on the Program of Work of a TWG triggers specific provisions of the SNIA IP Policy and the SNIA P&P for the TWG.

The Charter of a TWG with a SNIA Software Work Item must specify the license(s) under which the TWG may accept Contributions of software and the license(s) under which the TWG may release software. The licensing provisions of the Charter must be approved by the TC and the SNIA Board.

2.3.1.3 Document Work Item

A Work Item is of Document type if it leads to a document (not software) deliverable that does not rise to the level of SNIA Architecture.

Examples of Document Work Items include white papers, dictionary terms, and SNIA tutorials.

2.3.1.4 Other Software Work Item

A Work Item is of Other Software type if it has a software deliverable that does not rise to the level of SNIA Software. An Other Software Work Item may include associated documentation.

Policies and procedures for Other Software Technical Work are not yet defined, and Other Software Work Items are not allowed at this time.

2.3.2 Work Item Approval Process

As part of the TWG Work Item approval/review process, the TC will determine the document classification (6.3) and the process to be followed for approval of the resulting material.

For Work Items of SNIA Architecture or SNIA Software type, the TC will inform the SNIA Board and the SNIA Membership accordingly, and the Work Item will be designated as a SNIA Work-in-Progress.

2.3.2.1 Document Work Items and SNIA Architecture Work Items

A TWG may create, delete, and/or modify Work Items that are within the scope of its existing Charter with majority approval of the TWG members.

The TWG Chair shall notify the Technical Council Managing Director (TCMD) of the change within 7 days. The TCMD will then notify the TC that a TWG Work Item change has occurred. The TC has 30 days from the TCMD's notification to veto the Work Item change. If no veto is generated within this time period, then the Work Item change is

SNIA Technical Work Group Policies & Procedures

automatically approved. During this period, the TWG has contingent authorization to proceed as though the change will be approved.

If a Work Item change is vetoed, the veto will provide an explanation of the reasons why it was vetoed. A TWG may resubmit a Work Item change after addressing all issues generated by the original veto.

2.3.2.2 SNIA Software Work Items and Other Software Work Items

A TWG may request that the TC add or modify a Work Item to its Program of Work. The TWG shall work with the TCMD and a representative of the TC to specify the proposed Work Items and any associated changes to the Charter of the TWG. The proposal must be presented to the TC and approved by the TC (with added/changed licenses also subject to approval by the SNIA Board) before the change becomes effective.

A TWG may delete a Work Item with majority approval of the TWG members via the same process described for Document Work Items and SNIA Architecture Work Items (2.3.2.1).

2.3.3 Work Item Status

The TC may request status on the development of a Work Item at any time.

2.4 Chairs

The main purpose of a TWG Chair is to assure that meetings run smoothly and stay focused on the meeting's agenda. In addition, the Chair is responsible for keeping the TCMD informed of the status of all activities in the TWG.

The responsibilities of a TWG Chair include but are not limited to the following:

- Assuring that meetings are run in a *Professional Manner* following an approved agenda.
- Assuring that all bylaws, policies and procedures of the SNIA are followed by the TWG.

Each TWG Chair, when requested by the TCMD, is responsible for creating a Status Report of their respective TWG.

The following rules and restrictions shall apply to TWG Chairs.

- A TWG shall have one or two Chairs.
- A TWG may have two Chairs and in such a case the two Chairs will be referred to as Co-Chairs and shall work for different MEMBERS.
- The appointment of a Chair or Co-Chair requires majority approval of the TWG members.
- The TCMD or the TC may appoint an interim Chair or Co-Chair, pending approval of the TWG members.

SNIA Technical Work Group Policies & Procedures

- The TC may remove a Chair or Co-Chair, if their duties are not being performed properly and in a professional manner.
- Any time there is a dispute between two Co-Chairs that needs to be resolved; it shall be resolved by a vote of the TWG members.

At the beginning of each calendar year, a TWG shall hold Chair elections. Existing Chairs are welcome to re-run and there is no term limit. The annual election provides the opportunity for other interested TWG participants to become Chair or Co-Chair. All Sub-Groups within a TWG shall also hold annual Chair elections.

2.5 Secretary

A TWG may elect a Secretary, someone other than the Chair. The Secretary is responsible for ensuring that correct meeting notes are taken and distributed, scheduling votes, taking and counting the votes, and keeping a roster of TWG members that are eligible to vote when an Official Vote (11.1) is called.

The responsibilities of a TWG Secretary include but are not limited to the following:

- Distribute an agenda for each conference call and meeting at least 2 days prior to the event.
- Take detailed minutes as described in section 4.8.
- Distribute minutes for each conference call and meeting within 5 working days after the event.
- Keep the conference call schedule up-to-date on the SNIA Web site.

If a TWG does not elect a Secretary, then the above duties become the responsibility of the Chair. At the start of a meeting, where there is no Secretary present, the TWG Chair may assign someone else in the meeting the duty of taking the meeting minutes.

SNIA Technical Work Group Policies & Procedures

3 TWG Membership

The rules for membership in a TWG are as follows:

- A Representative of a MEMBER that is bound by SNIA IP Policy V3.0 or later may participate in any TWG.
- A Representative of a MEMBER that is bound by SNIA IP Policy V2.0 and has not yet agreed to be bound by SNIA IP Policy V3.0 or later may only participate in TWGs that do not have SNIA Software Work Items.
- A Representative of a MEMBER that is not bound by SNIA IP Policy V2.0 or later may not participate in any TWG.
- A MEMBER may have multiple Representatives (section 10.1) in a single TWG.
- A MEMBER becomes a TWG Member when a Representative of that MEMBER joins the TWG. The MEMBER remains a TWG Member until the MEMBER requests that its TWG membership be terminated.

3.1 TWG Industry Expert

During the development process a TWG may require the assistance of a non-SNIA Member Industry Expert. The Chair of a TWG, with a TWG majority vote, may make a request to the TCMD that the desired Industry Expert be granted a SNIA Individual Membership at no charge so that they may participate in the TWG. If granted by the TCMD in consultation with the TC the Industry Expert shall be offered an Individual Membership with all rights associated with it. If this offer is accepted, the Industry Expert shall agree to all policies and procedures associated with a SNIA Individual Membership, including signing the SNIA IP Policy. The TCMD will review the Industry Expert's membership on an annual basis.

It is not the intent of this provision that it be used in any way to subvert the intent of the SNIA IP Policy. Therefore, the use of an Industry Expert from a company that might reasonably be considered a candidate for SNIA membership shall be carefully considered by the TWG, the TCMD, and the TC.

SNIA Technical Work Group Policies & Procedures

4 TWG Meetings

4.1 Meeting Admission Requirements

Any number of individuals representing a MEMBER that is a member of a TWG may attend any meeting of the TWG.

Any MEMBER that is bound by SNIA IP Policy V2.0 or later may have individuals attend a total of at most two meetings of any TWG (of which it is not a member) within any 12 month period for the purposes of TWG membership consideration. This shall be recorded in the attendance for the meeting.

A non-SNIA member company may send representatives to attend TWG meetings for the purpose of evaluating SNIA membership. In such a situation, the non-SNIA member representatives must be registered event attendees. A non-SNIA member company may exercise this privilege at no more than 2 such events within any 12 month period.

4.2 SNIA Symposia and SNIA Technical Symposia

The SNIA regularly sponsors *SNIA Symposia* and *SNIA Technical Symposia* where Technical Working Bodies (TWBs), Committees, Initiatives, and Forums can meet face to face.

TWGs and TWG Sub Groups are encouraged to meet face to face at least twice a year and should consider SNIA Symposia and SNIA Technical Symposia as venues for these meetings.

4.3 Additional Meetings

TWGs may meet face to face outside of (and in addition to) the SNIA Symposia and SNIA Technical Symposia. For such meetings, one of the TWG members should host the meeting by providing meeting room facilities, including internet access and conference call capability. TWGs may consider the use of a SNIA Technology Center for such meetings.

In addition, TWGs should make use of phone conference calls on a regular basis to help accelerate the completion of the TWG's Program of Work.

4.4 Announcements and Cancellations

The following rules apply to all *face to face* meeting announcements and cancellations.

- *A minimum 14 day notice shall be given for any meeting announcement or cancellation.*
- Meeting cancellations require TCMD approval.

The following rules apply to all *conference call* meeting announcements:

- A minimum 7 day notice shall be given for meeting announcements.

SNIA Technical Work Group Policies & Procedures

- Changes to the published schedule of a regular reoccurring conference call shall have a minimum 7 day notice for the announcement of changes.

4.5 Informal Meetings

Meetings that do not meet the criteria for a proper meeting announcement (section 4.4) will be classified as *Informal Meetings*. There are certain restrictions that apply to *Informal Meetings* that are described in section 10.2 (Active TWG Member) and in section 11.1 (Official Voting Process) of this document.

4.6 Agenda

At least 7 days prior to any meeting a written draft Agenda shall be distributed to the TWG members and any other invited attendees.

The purpose for prior distribution of a draft Agenda for a meeting include a) informing TWG members and invited attendees of the purpose of the meeting, b) enabling them to plan and prepare for the meeting, and c) providing a notice of matters of substance that will be decided at the meeting.

When the purpose of a meeting is to conduct on-going work, it is sufficient to list on the agenda “ongoing work” on a specified approved TWG Work Item. All planned Official Votes shall be specifically on the agenda.

4.7 Attendance Tracking

Good order makes accurate attendance tracking desirable. The SNIA IP Policy makes accurate attendance records essential.

Attendance at every TWG meeting (face-to-face or concall) shall be recorded. The information recorded for each attendee shall include at least: attendee’s name, name(s) of company/organization represented, phone number, and email address. If an attendee is a guest (non-SNIA member or non-TWG member) this shall be noted in the list of attendees.

The SNIA Web site tool for attendance tracking shall be used. Questions in regards to this tool may be directed to the TCMD.

4.8 Minutes

At every TWG meeting (face to face or conference call) if the TWG does not have a Secretary (section 2.5) the Chair shall appoint someone to take the minutes of the meeting.

The minutes of a meeting as a minimum shall include:

- Record that the SNIA IP Policy meeting announcement was made at the start of the meeting
- List of all Attendees and related information (section 4.7)
- Results of the call to approve the minutes of the previous meeting

SNIA Technical Work Group Policies & Procedures

- Action Items
- Results of Official Votes (section 11.1)
- Results of discussions
- Update on near-term deliverables
- The name and contact information of the person recording the minutes
- Record if Webex or some other online tool was used to conduct the meeting

The minutes of every TWG meeting shall be posted via the Kavi Meeting tool on the SNIA Web site within 5 business days of the meeting.

At the next TWG meeting, the minutes from the prior meeting shall be reviewed, corrected as necessary, and approved through a vote.

4.9 Intellectual Property Announcements

At the start of every meeting the TWG Chair (or Chair representative) shall announce to all present:

“You are hereby informed that, under the SNIA IP Policy, your presence at this meeting may obligate you and/or your company/organization with respect to any of the work items of the SNIA [name(s)] Technical Working Group[s].”

This announcement and the fact that it was given shall be recorded in the meeting minutes.

4.10 Joint Meetings

When two or more TWGs meet together it shall be considered a concurrent meeting of each of the TWGs involved in the meeting. Each individual in attendance must be eligible to attend a meeting of each of the involved TWGs, and shall be considered to have attended a meeting of each of the involved TWGs.

SNIA Technical Work Group Policies & Procedures

5 TWG Sub Groups

In order to accomplish a TWG's Program of Work, it may be necessary to sub divide the work into smaller groups called Sub Groups. TWGs may optionally form Sub Groups as defined below.

5.1 Formation and Structure

The following rules and restrictions apply to the formation and structure of Sub Groups.

- A Sub Group requires an Official Vote of the TWG membership to be created or disbanded.
- A Sub Group shall only work on approved TWG Work Items (section 2.3) and shall not create new Work Items. The parent TWG shall assign all Work Items.
- A Sub Group shall have a Chair.
- A Sub Group may have two Co-Chairs and in such a case the two Co-Chairs shall work for different MEMBERS.
- The appointment of a Chair or Co-Chair requires majority approval of the Sub Group.
- A Sub Group may have a Secretary (section 2.5).
- A Sub Group shall have at least 3 active MEMBERS.
- A Sub Group shall not create additional Sub Groups.
- The TCMD shall be notified of a new Sub Group within 7 days of its creation. The TCMD will then notify the TC that a new Sub Group has been formed, giving the TC the opportunity to review it. The TC then has 30 days from this notification of the new Sub Group formation to veto it. If no veto is generated within the given time period, then the new Sub Group is automatically approved. During this period, the TWG has contingent authorization to proceed as though the change will be approved.

5.2 Operation

Sub Groups shall follow all of the procedures for meetings that apply to the parent TWG (section 4).

In addition to the rules that apply to a TWG, the following rules apply to Sub Groups.

- Each Sub Group Chair, or someone representing the Chair, should give a Sub Group status report at every meeting of the parent TWG.

SNIA Technical Work Group Policies & Procedures

- Each Sub Group should consider SNIA Symposia and SNIA Technical Symposia as venues for face to face meetings.
- A Sub Group may meet separately from its parent TWG.
- Sub Groups shall not release any type of technical material without approval of their parent TWG, which may in turn require additional TC approval.
- Upon completion of all of its assigned Work Items, a Sub Group shall be dissolved by its parent TWG.
- A Sub Group may be dissolved at any time by a majority vote of its parent TWG.
- For the purpose of applicability of the SNIA IP Policy, the scope of a Sub Group is the parent TWG.

SNIA Technical Work Group Policies & Procedures

6 Development and Release of SNIA Architecture and Document Technical Work

The development and release of SNIA Architecture and Document Technical Work is governed by the policies and procedures defined in this section.

6.1 Definitions

The term Technical Work used in this section relates to SNIA Architecture and Document Technical Work. The term Technical Work as it relates to other categories such as SNIA Software Technical Work is described elsewhere in this document (section 7.1).

Technical Work is technical material that is developed, created, modified, or accepted by a Technical Working Body (TWB) in the course and scope of its activities. The technical material may be in the form of architectures, specifications, white papers, presentations, proposals, etc. This statement is a summary of the SNIA IP Policy.

The following are examples of SNIA Technical Work:

1. Technical material that is offered to and accepted for consideration by the SNIA as a basis for further SNIA work.
2. Technical material that is offered to and accepted for consideration by the SNIA for adoption as SNIA Architecture.
3. Technical material that is accepted, created, or modified by a TWB in the course of its work (a SNIA Technical Document).
4. Technical material that is the end product of a TWB and has not yet been approved as SNIA Architecture (a SNIA Technical Document).

6.2 Copyrights and Disclaimers

Technical Work created by TWBs shall grant copyright to the SNIA, and shall include the appropriate standard SNIA legal disclaimer for the classification as defined below. All SNIA Technical Documents shall be clearly labeled on every page as follows, where *Classification* is the SNIA Document Classification, and *Base TWB* is the TWB that authored the document:

“<Classification> document of the <Base TWB>”

6.3 SNIA Technical Document Classifications

Any Technical Work produced by a TWB that is a document shall be classified in one of the following ways. The document’s classification is what governs the approval procedure to have the document published and released to the public. The Charter and Work Items of the TWG that develops a document shall determine the classification to be used.

SNIA Technical Work Group Policies & Procedures

6.3.1 In-Development Document Classifications

The following classifications cover cases where a document is still under development in a TWB. Any documents covered by this classification are expected to incur significant change before the Work Item to which they refer is completed.

6.3.1.1 Internal Use Draft

All documents that have not completed the Release Process (section 6.4.1) shall be classified as an *Internal Use Draft*.

An *Internal Use Draft* is an internal document of the developing TWB and may not be released outside of the TWB except for the purpose of release approval. *Internal Use Draft* documents shall have the following statement, or equivalent, included on the front cover of the document:

“For SNIA <Base TWB> Internal Use Only. This *Internal Use Draft* is an internal document of the <Base TWB> that has not been approved for release outside of the membership of the <Base TWB>. This draft may not represent the position of the <Base TWB>. Suggestions for revision should be directed to <Base TWB> at <Base TWB email address>.”

Documents classified as *Internal Use Draft* shall be marked (including on the front page) as follows:

“For SNIA <Base TWB> Internal Use Only”.

6.3.1.2 Working Draft

All documents that have not completed an Approval Process (section 6.4) shall be classified as a *Working Draft*, unless specified otherwise below. Some SNIA Technical Documents may not progress beyond the Working Draft classification. A document shall be approved by an Official Vote of the TWB in order to progress beyond this classification (section 6.4.1).

Publication of a *Working Draft* is not an assertion of consensus, endorsement, or technical quality. *Working Draft* documents shall have the following statement, or equivalent, included on the front cover of the document:

“Publication of this *Working Draft* for review and comment has been approved by the <Base TWB>. This draft represents a “best effort” attempt by the <Base TWB> to reach preliminary consensus, and it may be updated, replaced, or made obsolete at any time. This document should not be used as reference material or cited as other than a “work in progress.” Suggestions for revision should be directed to ...”

6.3.1.3 Trial-Use Draft

The purpose of this classification is to provide a stable draft of the proposed specification to encourage prototype implementations. It shall be used when it is believed that implementation experience is needed before the content of the proposed specification can be finalized and submitted for SNIA Approval. *Trial-use-Draft*

SNIA Technical Work Group Policies & Procedures

documents shall have the following statement, or equivalent, included on the front cover of the document:

“Publication of this *Trial-Use Draft* Specification for trial use and comment has been approved by the SNIA Technical Council and the <Base TWB>. Distribution of this draft specification for comment shall not continue beyond () months from the date of publication. It is expected, but not certain that following this () month period, this draft specification, revised as necessary will be submitted to <the SNIA Membership and/or Technical Council> for final approval. Suggestions for revision should be directed to ...”

In the case where the developing TWB is the TC, the following statement shall be used:

“Publication of this *Trial-Use Draft* Specification for trial use and comment has been approved by the SNIA Technical Council. Distribution of this draft specification for comment shall not continue beyond () months from the date of publication. It is expected, but not certain that following this () month period, this draft specification, revised as necessary will be submitted to <the SNIA Membership and/or Technical Council> for final approval. Suggestions for revision should be directed to ...”

6.3.2 Completed Document Classifications

The following classifications cover cases where a document has completed development in a TWB. Any documents covered by these classifications are expected to only change in response to problems identified during the Technical or Architecture approval processes (sections 6.4.3 and 6.4.4). A TWB may view a Work Item as being completed when the document to which it refers reaches one of these classifications.

6.3.2.1 <Base TWB> Proposal

This document classification is reserved for documents that provide TWB input into other standards bodies and organizations, where additional development may take place.

A <Base TWB> *Proposal* shall have the following statement, or equivalent, included on the front cover of the document:

“Publication of this <Base TWB> *Proposal* has been approved by the SNIA. This document represents a stable proposal for use as agreed upon by the <Base TWB>. The SNIA does not endorse this recommendation for any other purpose than the use described. This Proposal may not represent the preferred mode, and the SNIA may update, replace, or release competing Proposals at any time. The intended audience for this Proposal is another standards body, therefore future support and revision of this Proposal may be outside the control of the SNIA or originating <Base TWB>. Suggestions for revision should be directed to ...”

6.3.2.2 SNIA Technical Proposal

The SNIA Technical Proposal classification covers documents that have a specific identified use, a specific identified target audience or organization, and are deemed by the developing TWB to be suitable for publication to a wider audience. SNIA Technical

SNIA Technical Work Group Policies & Procedures

Proposals may be incomplete; however they should represent the closure of a well defined, chartered Work Item.

A *SNIA Technical Proposal* document shall have the following statement, or equivalent, included on the front cover of the document:

“Publication of this *SNIA Technical Proposal* has been approved by the SNIA. This document represents a stable proposal for use as agreed upon by the <Base TWB>. The SNIA does not endorse this proposal for any other purpose than the use described. This proposal may not represent the preferred mode, and the SNIA may update, replace, or release competing proposals at any time. If the intended audience for this release is another standards body, the future support and revision of this proposal may be outside the control of the SNIA or originating <Base TWB>. Suggestions for revision should be directed to ...”

6.3.2.3 SNIA Technical Position

The SNIA Technical Position classification covers documents that have completed all SNIA approval processes and represent a clear consensus position of the organization.

SNIA Technical Position documents shall have the following statement, or equivalent, included on the front cover of the document:

“This document has been released and approved by the SNIA. The SNIA believes that the ideas, methodologies and technologies described in this document accurately represent the SNIA goals and are appropriate for widespread distribution. Suggestions for revision should be directed to ...”

A document that has been approved as SNIA Architecture is a SNIA Technical Position.

6.4 SNIA Technical Document Approval Processes

Six different approval processes are documented, as follows:

- 1) Release Process
- 2) IP Review Process
- 3) Technical Approval Process
- 4) Architecture Approval Process
- 5) SNIA Standardization Process
- 6) Errata Review Process

The Release and IP Review processes operate on Technical Work Items that are still in development. The other processes cover the approval of a completed TWB Work Item by the entire SNIA organization, and the subsequent publication of work to the public or to INCITS for standardization.

In the cases where the developing TWB is the TC, redundant steps should be combined.

SNIA Technical Work Group Policies & Procedures

6.4.1 Release Process

The Release Process is followed when a TWB that is developing SNIA Technical Work wishes to make Work that is still under development available to a wider audience than the TWB's own membership. That audience may be defined as specific other TWBs; MEMBERS; specific consultants, partners, and other interested parties outside of the SNIA; or the public.

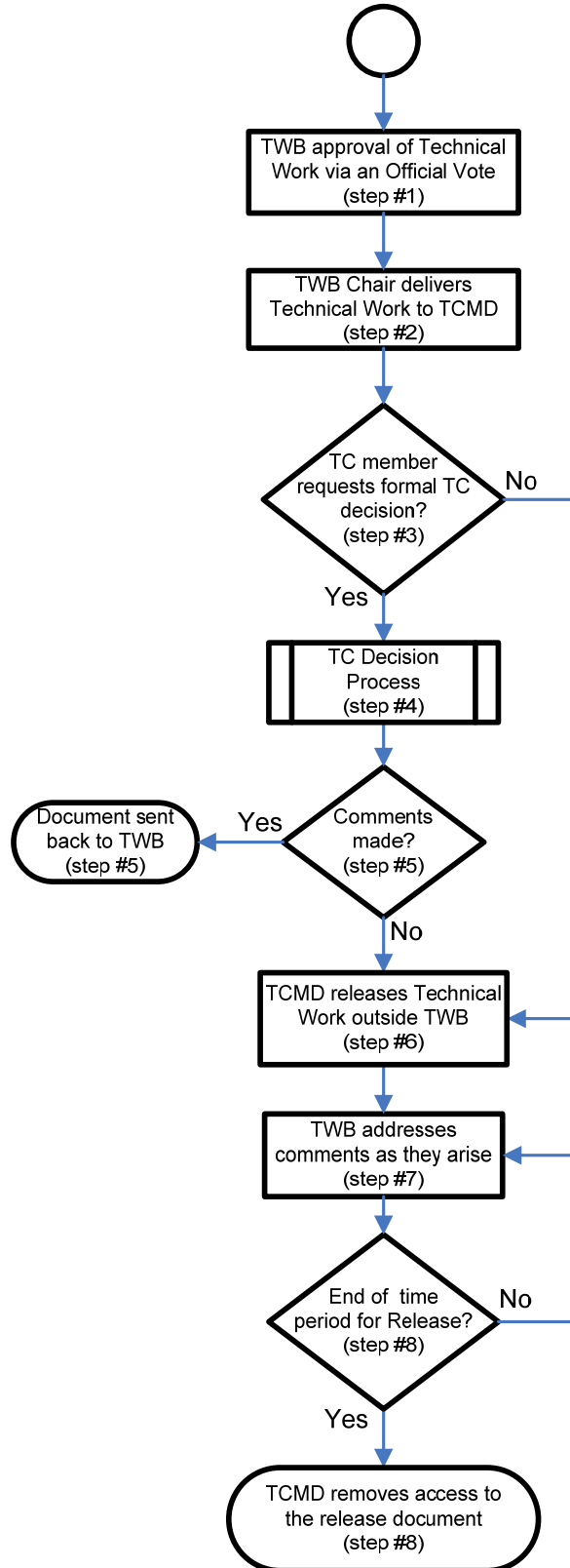
The principal goal of releasing In-Development Technical Work is to gain additional review and feedback from a larger audience, to encourage developers to implement the Technical Work to help identify potential issues during the development process, to gather more experimental data, and to speed up the final development of the document.

The steps in the release process are:

- 1) The developing TWB shall approve publication of the Technical Work in one of the In-Development Document Classifications (section 6.3.1) by an Official Vote (section 11.1). The motion shall include identification of the intended audience.
- 2) The Chair of the developing TWB shall inform the TCMD of the results of the vote, and shall supply a copy of the Technical Work to the TCMD. The TCMD will then notify the TC of the availability of the Technical Work.
- 3) If no TC member calls for a formal TC Decision Process on the Technical Work within 7 days, processing will continue with step 6).
- 4) The TC Decision Process
- 5) If comments are made during the TC Decision Process above, the document shall be returned to the developing TWB for additional work. After addressing the comments the developing TWB may resubmit the document starting with step 1) above.
- 6) The TCMD will release the Technical Work to the intended audience by posting the document to the web site or other means and making an announcement to the intended audience. Where the release is limited to a specific time period, that time period shall be identified in the announcement.
- 7) During the release period the developing TWB shall address comments as they arise. Comments received from non-SNIA member organizations, and from MEMBERS that are not opted out from the developing TWBs, shall always be reviewed, and the commenting party shall be informed of the disposition of those comments. Comments from MEMBERS that are opted out from the developing TWB may or may not be reviewed, and disposition returned to the commenter, at the discretion of the developing TWB.
- 8) Where the release is limited to a specific time period, at the completion of that time period the TCMD will ensure that the Technical Work ceases to be available outside of the developing TWB.

SNIA Technical Work Group Policies & Procedures

Release Process



SNIA Technical Work Group Policies & Procedures

6.4.2 IP Review Process

The purpose of the IP Review Process is to implement the SNIA IP Policy, i.e. to seek to identify at an early stage situations where use of SNIA Architecture or SNIA Software may require a license of patents (section 9).

Execution of an IP Review requires a draft document (not necessarily complete or self-consistent) which can be reviewed by MEMBERS.

6.4.2.1 Periodic IP Review Process

Technical Work that has been designated SNIA Work-in-Progress and has progressed to the point of having a draft deliverable (possibly incomplete or inconsistent) shall, at least every six months, execute the Periodic IP Review Process.

- 1) The developing TWB shall approve by an Official Vote (section 11.1) the release of a Working Draft document to the MEMBERS for the purpose of an iteration of the Periodic IP Review Process.
- 2) The Chair of the developing TWB shall inform the TCMD of the results of the TWB vote, and shall supply a copy of the Technical Work to the TCMD. The TCMD will then notify the TC of the availability of the Technical Work.
- 3) The TC will determine whether the document is ready for IP Review and make its recommendation to the SNIA Board. If the TC determines the document is not ready, the document shall be returned to the developing TWB with comments from the TC.
- 4) The SNIA Board issues a Call for IP Disclosure to the MEMBERS.
- 5) Within 7 days of the end of the 60-day Call for IP Disclosure period, the SNIA Board sends results of the IP Review to the TC and to the Chair of the developing TWB.
- 6) If during the Call for IP Disclosure period statements regarding possible Essential Claims were disclosed by the MEMBERS, then the TC shall determine the next steps.

The Periodic IP Review Process shall not be interpreted or used as an interruption of TWB progress on a Work Item. Rather, it is an asynchronous process that should be planned and executed as routine. The only situation where progress on the Work Item may be interrupted is in the event that results of the IP Review require step 6, in which case the TC determines the necessary next steps.

6.4.2.2 Final Document IP Review Process

Every document produced by a TWB that seeks to be approved as SNIA Architecture (a case which includes all documents to be driven by the SNIA as de-jure standards) shall be subject to the Final Document IP Review Process.

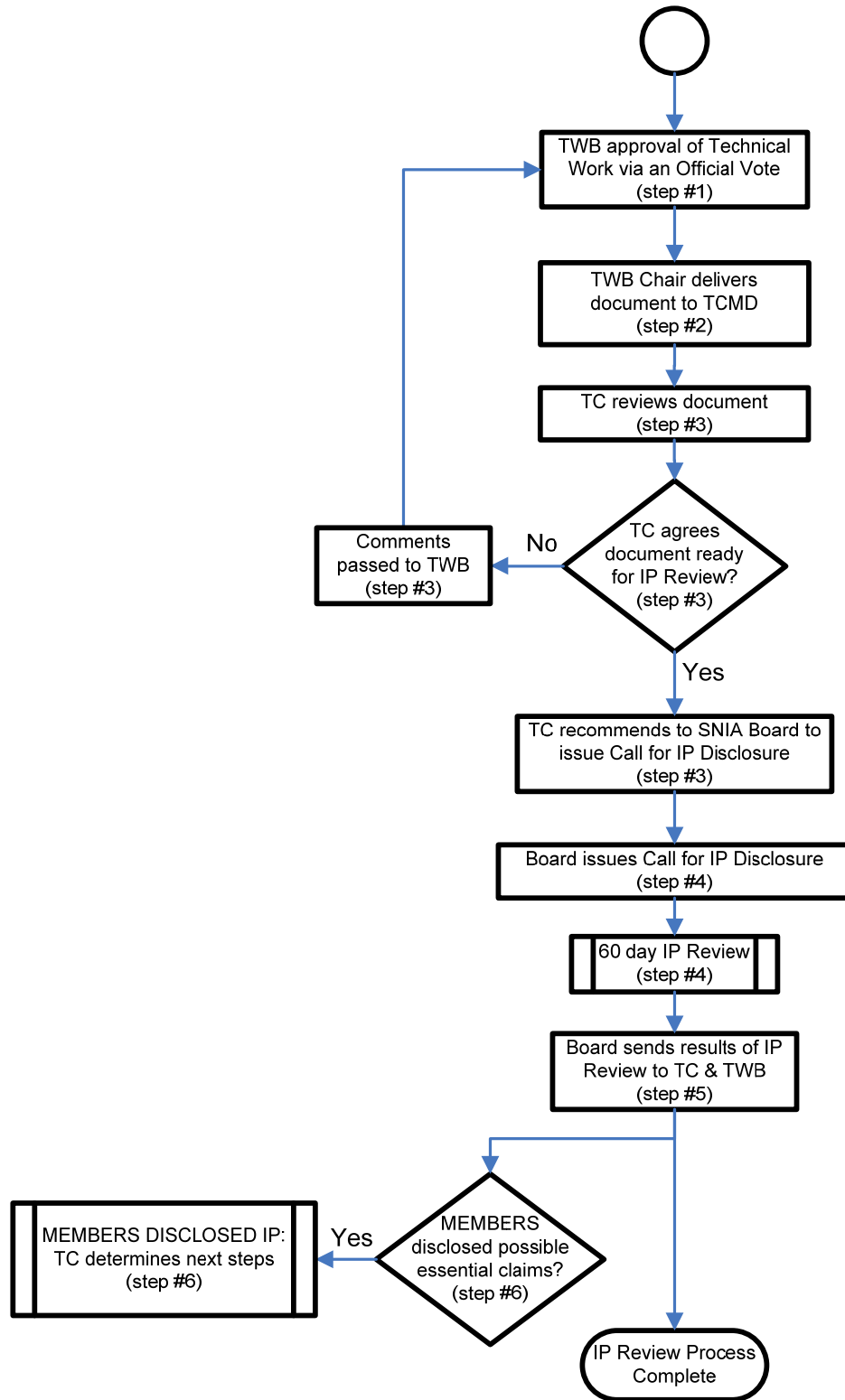
SNIA Technical Work Group Policies & Procedures

The Final Document IP Review Process should normally be executed concurrently with the SNIA Membership Vote to adopt the document as SNIA Architecture, and be done on the same document that is being submitted for SNIA Membership Vote. Any exceptions to this situation shall be proposed for approval by the TC with as much advance notice as possible. The process steps below assume the normal case, where the Final Document IP Review Process piggy-backs on the Architecture Approval Process, and addresses only the incremental additions of the Final Document IP Review Process.

- 1) Any results of the Call for IP Disclosure (MEMBER statements regarding possible Essential Claims) should be forwarded to the Chair of the TWB no later than seven (7) days after the Call for IP Disclosure period ends. These results are also to be made available on the SNIA web site.
- 2) The TWB, in consultation with the TCMD, the TC, and at the TC's discretion SNIA Legal Counsel, shall determine what, if any actions should be taken based upon the results of the IP Review.

SNIA Technical Work Group Policies & Procedures

IP Review Process



SNIA Technical Work Group Policies & Procedures

6.4.3 Technical Approval Process

The Technical Approval Process is followed when a TWB developing a SNIA Technical Work has completed development of that Work, believes that the Work is of sufficient maturity to be used or implemented, and wishes to make that completed work available to a wider audience than its own TWB membership. That audience may be defined as a specific organization, other MEMBERS, or the public.

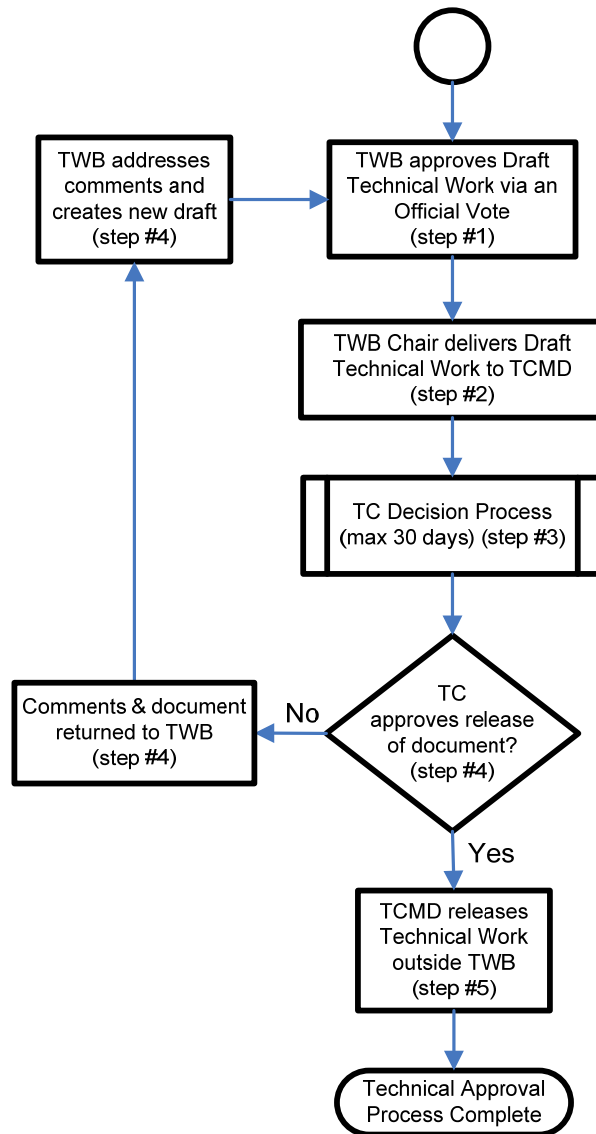
The principal goals for the technical approval of SNIA Technical Work are to encourage developers to begin implementation to help identify potential issues during the development process, to gather more experimental data, and to speed up the development of future SNIA Technical Work. MEMBERS are encouraged to evaluate implementations of the Technical Work, document the results/feasibility, and discuss the work's potential with SNIA Members and Participants and customers. Companies may also publish technical articles or make presentations to industry conferences in which they discuss the Work.

The steps in the Technical Approval process are:

- 1) The developing TWB shall approve publication of the Technical Work as a Trial-Use Draft or as one of the Completed Document Classifications by an Official Vote (section 11.1). The motion shall include definition of the intended audience, unless the Technical Work is a SNIA Technical Position, in which case the audience is by definition unrestricted.
- 2) The Chair of the developing TWB shall inform the TCMD of the results of the vote, and supply a copy of the Technical Work.
- 3) The TCMD will then notify the TC of the availability of the Technical Work and schedule a vote of the TC to approve the release of the Technical Work. The TC will render a decision within 30 days.
- 4) If the TC did not approve the release of the Technical Work, then the Technical Work and TC comments shall be returned to the developing TWB, otherwise the process continues with the next step.
- 5) The TCMD will release the Technical Work to the intended audience.

SNIA Technical Work Group Policies & Procedures

Technical Approval Process



SNIA Technical Work Group Policies & Procedures

6.4.4 Architecture Approval Process

Completion of the Architecture Approval Process is required when the SNIA Technical Work has been designated as SNIA Work-in-Progress by the TC. Specifically, completion of this process is necessary when SNIA political, promotional, or educational support of SNIA Technical Work is desired.

Because of the lengthy and formal nature of the Architecture Approval Process, it should normally be the case that a draft of the material being moved by the TWB into the Architecture Approval Process has been previously exposed to the MEMBERS for technical review via the Release Process (section 6.4.1) and that the results of this review have been incorporated into the document being moved into the Architecture Approval Process.

The steps in the Architecture Approval process are:

- 1) The developing TWB shall approve publication of the draft Technical Work by an Official Vote (section 11.1). This vote shall also indicate whether the developing TWB expects to the draft Technical Work to enter the SNIA Standardization Process (section 6.4.5) after approval as SNIA Architecture in Step 7 below.
- 2) The Chair of the developing TWB shall inform the TCMD of the results of the vote, and supply a copy of the Technical Work. Once the document is delivered to the TCMD, the developing TWB starts the process of creating an Errata Document for the Technical Work submitted. No further changes shall be made to the original Technical Work submitted.
- 3) The TCMD will schedule a vote of the TC to approve the release of the Technical Work.
- 4) If the TC did not approve the release of the Technical Work, then the Technical Work and TC comments shall be returned to the developing TWB, otherwise the process continues with the next step.
- 5) The TC shall request a SNIA Board motion to approve the draft Technical Work for presentation to the MEMBERS for approval as SNIA Architecture and for a concurrent Final Document IP Review Process (section 6.4.2.2).
- 6) If the SNIA Board approves the release of the Technical Work, then the process continues with the next step. Otherwise, the SNIA Board vote failed and the TC will determine the next steps.
- 7) Upon SNIA Board approval, the draft Technical Work will be made available to the MEMBERS for approval as SNIA Architecture and for a concurrent Final Document IP Review Process (section 6.4.2.2), which is a 60-day process. The SNIA Standardization Process (section 6.4.5) is also started at this time.
- 8) Upon completion of the above step, the TCMD shall work with the SNIA Secretary to ensure that the SNIA Board announces the results of the SNIA

SNIA Technical Work Group Policies & Procedures

Membership Vote to the SNIA Membership. The TCMD should also work with the SNIA Secretary to post the results of the Final Document IP Review on the public-facing Standards web pages and on the internal-facing Standards web pages.

- 9) If MEMBERS disclosed possible essential claims, then the TC will determine the next steps. Processing still continues with the following step.
- 10) If the SNIA Membership Vote passed, then the process continues with the next step. Otherwise the SNIA Membership Vote failed, the SNIA Board and TC shall determine the next steps.
- 11) The SNIA Staff shall format the Technical Work as a SNIA Technical Position and create a PDF and publish it on the public side of the SNIA web site.
- 12) If the developing TWB has not created an Errata Document, then the Architecture Approval Process is complete, otherwise the Errata Review Process (section 6.4.6) is performed and processing is continued with the next step.
- 13) If a SNIA Membership Vote or Call for IP Disclosure was started as a result of the Errata Review Process (section 6.4.6), then the TC will determine the next steps. Otherwise processing is continued with the next step.
- 14) The SNIA Staff shall publish the corrected SNIA Technical Position.

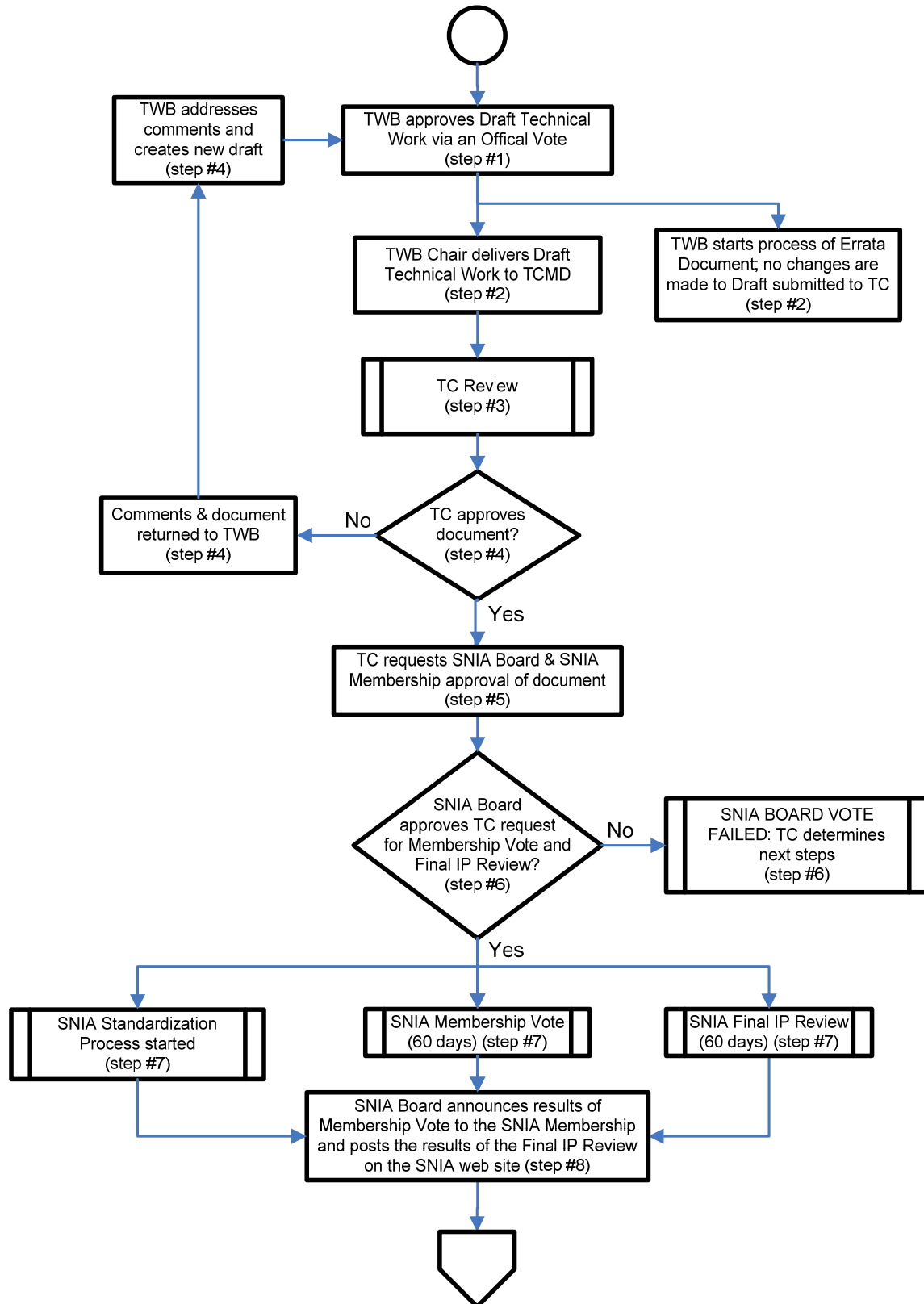
In addition to the above process, MEMBERS may submit a Technical Work for approval by the SNIA as SNIA Architecture in a format similar to prior SNIA published works.

In this case, steps 1 – 3 of the above process are replaced by the following steps:

- 1) The Technical Work is submitted to the TC. The TC will review the contents, applicability and potential of the proposal and present a recommendation back to the submitter identifying a proposed course of action.
- 2) The Chair of the TC shall then request that the SNIA Board or Executive Committee formally accept the proposal for future work within the SNIA. The SNIA Board or Executive Committee may also vote for the submitted work to immediately enter the SNIA Fast Track approval process.
- 3) Draft Architectures approved by the SNIA Board for SNIA Fast Track Approval will be immediately submitted to the MEMBERS for formal approval per the corporation's bylaws as in step 7 above.

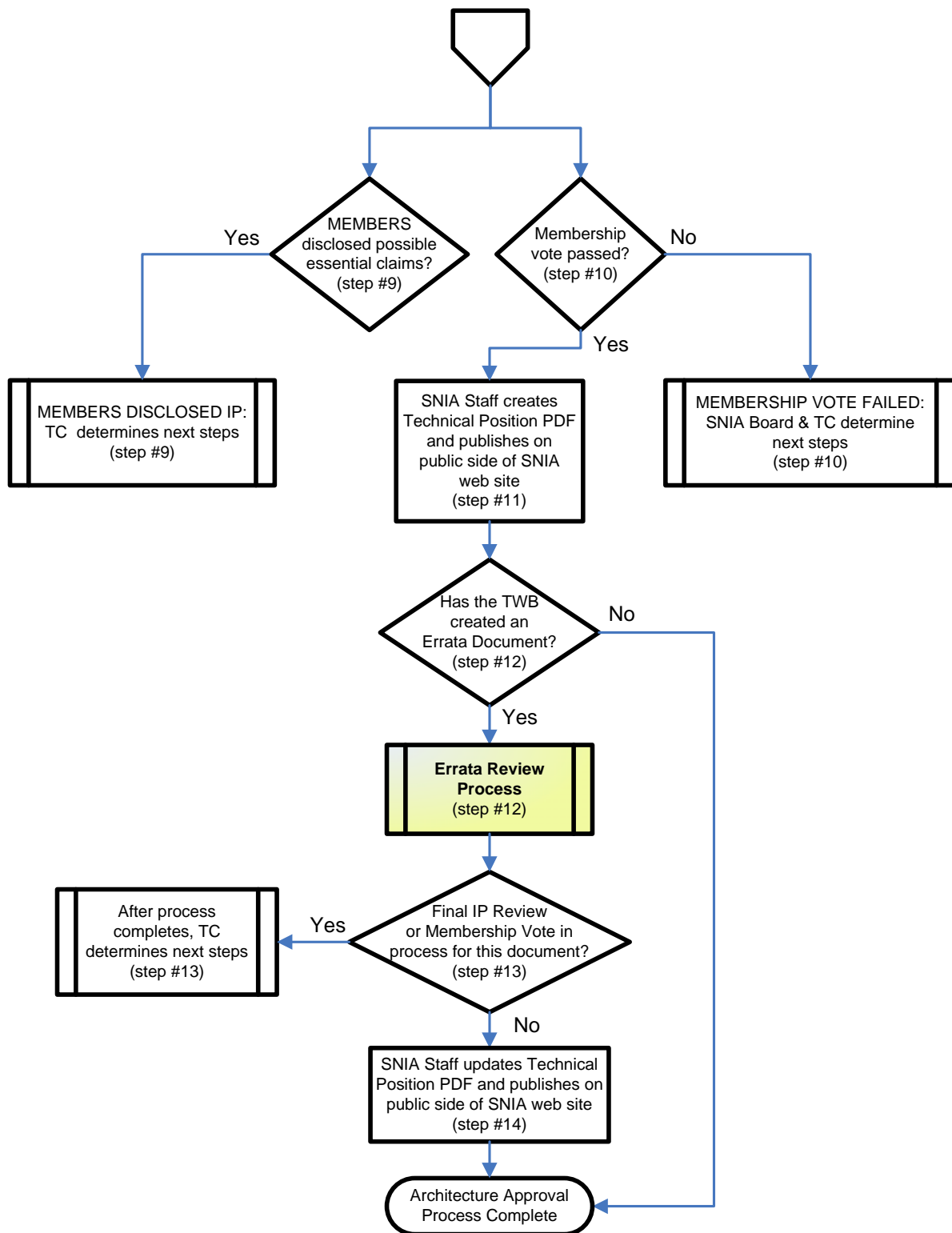
SNIA Technical Work Group Policies & Procedures

Architecture Approval Process



SNIA Technical Work Group Policies & Procedures

Architecture Approval Process (continued)



SNIA Technical Work Group Policies & Procedures

6.4.5 SNIA Standardization Process

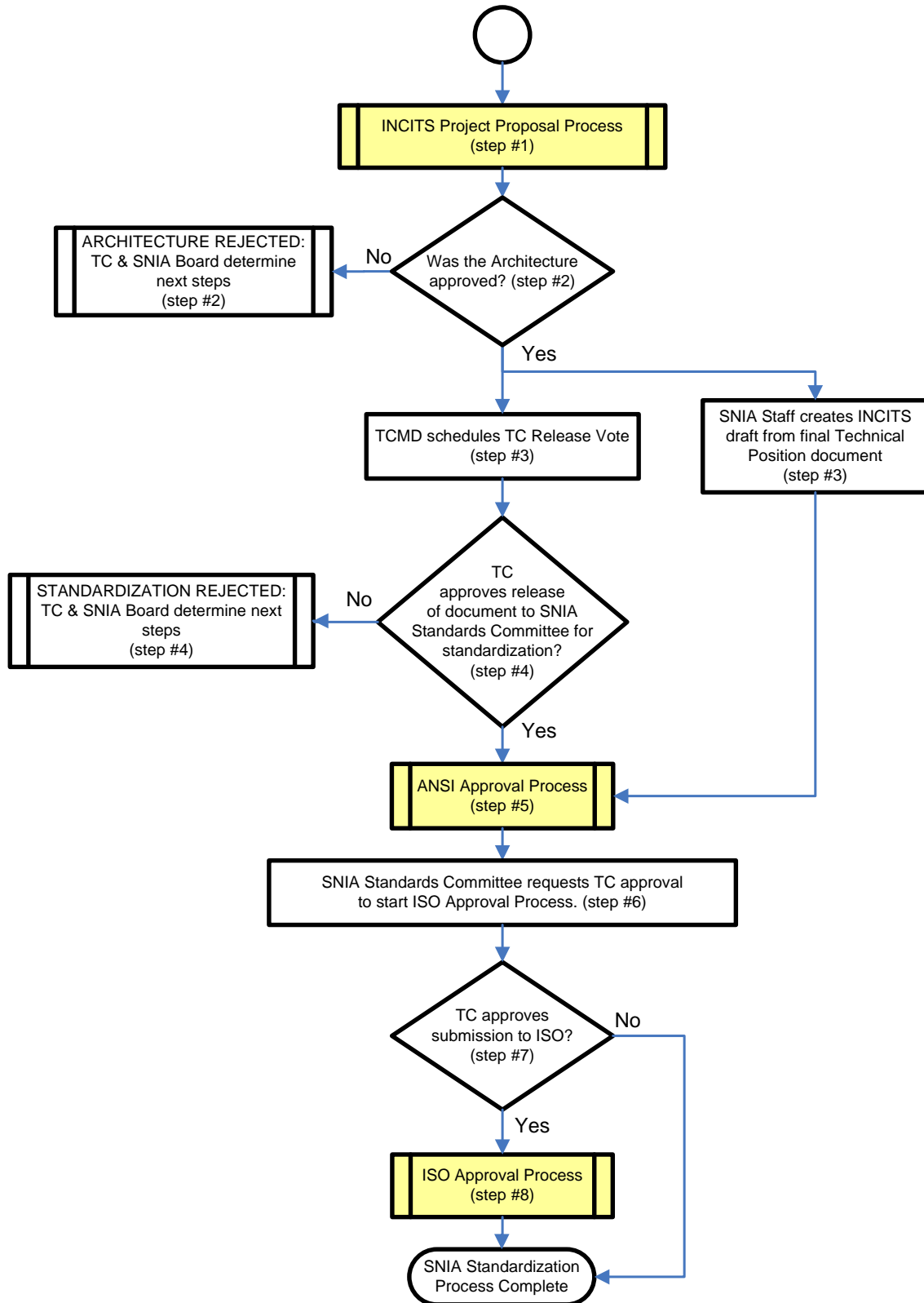
Completion of the SNIA Standardization Process is required when the SNIA Technical Work has been designated as SNIA Work-In-Progress and has been determined to be appropriate for this process by the TC and the SNIA Standards Committee, and step 7 of the Architecture Approval Process (section 6.4.4) has been reached. Only the parts of this process that are relevant to TWBs are described here.

The steps in the SNIA Standardization process are:

- 1) INCITS Project Proposal Process (section 6.4.5.1)
- 2) If the SNIA Architecture was approved (section 6.4.4), processing continues with the next step. Otherwise, the TC and the SNIA Board determine the next steps.
- 3) The TCMD will schedule a vote of the TC to approve submission of the SNIA Architecture to INCITS. In parallel, the SNIA Staff creates the INCITS draft from the Technical Position document of the approved SNIA Architecture.
- 4) If the TC approves the release of the document to the SNIA Standards Committee for standardization then processing continues with the next step, otherwise the TC and the SNIA Board determine the next steps.
- 5) ANSI Approval Process (section 6.4.5.2).
- 6) The SNIA Standards Committee requests TC approval to start the ISO Approval Process (section 6.4.5.3).
- 7) If the TC approves the submission of the document to ISO, processing continues with the next step. Otherwise the Standardization Process is complete.
- 8) ISO Approval Process (section 6.4.5.3).

SNIA Technical Work Group Policies & Procedures

SNIA Standardization Process



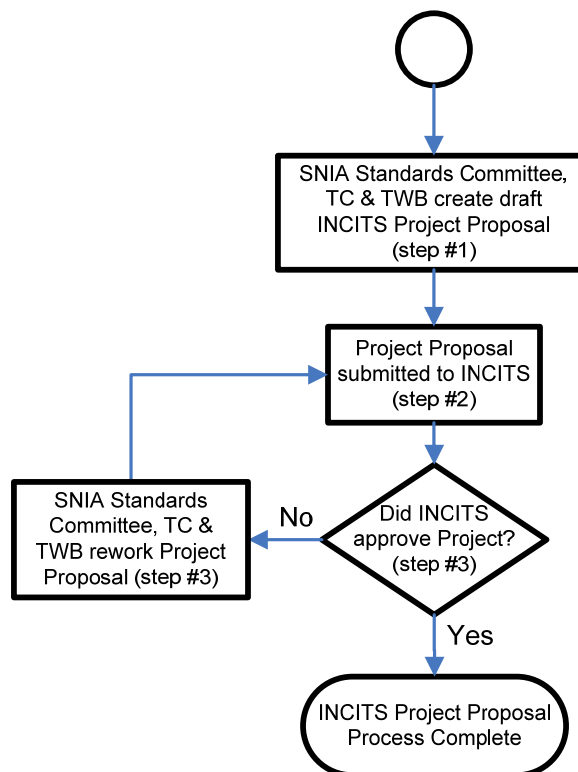
SNIA Technical Work Group Policies & Procedures

6.4.5.1 INCITS Project Proposal Process

The INCITS Project Proposal Process is the part of the SNIA Standardization Process that handles the creation, submission and approval of an INCITS project proposal prior to the submission of a draft standard to INCITS.

- 1) During the SNIA Membership Architecture vote of the Architecture Approval Process (section 6.4.4), the SNIA Standards Committee, in consultation with the TC and developing TWB, shall draft an INCITS Project Proposal in the approved format (as currently documented in the RD-5 Project Proposal Guide available from <http://www.incits.org>), and in line with previously submitted proposals.
- 2) The SNIA Standards Committee shall submit the project proposal to INCITS.
- 3) If the project proposal is rejected by INCITS, the SNIA Standards Committee, the TC and the TWB rework the proposal and proceed back to step 2.
- 4) The INCITS Project Proposal process is complete.

INCITS Project Proposal Process



6.4.5.2 ANSI Approval Process

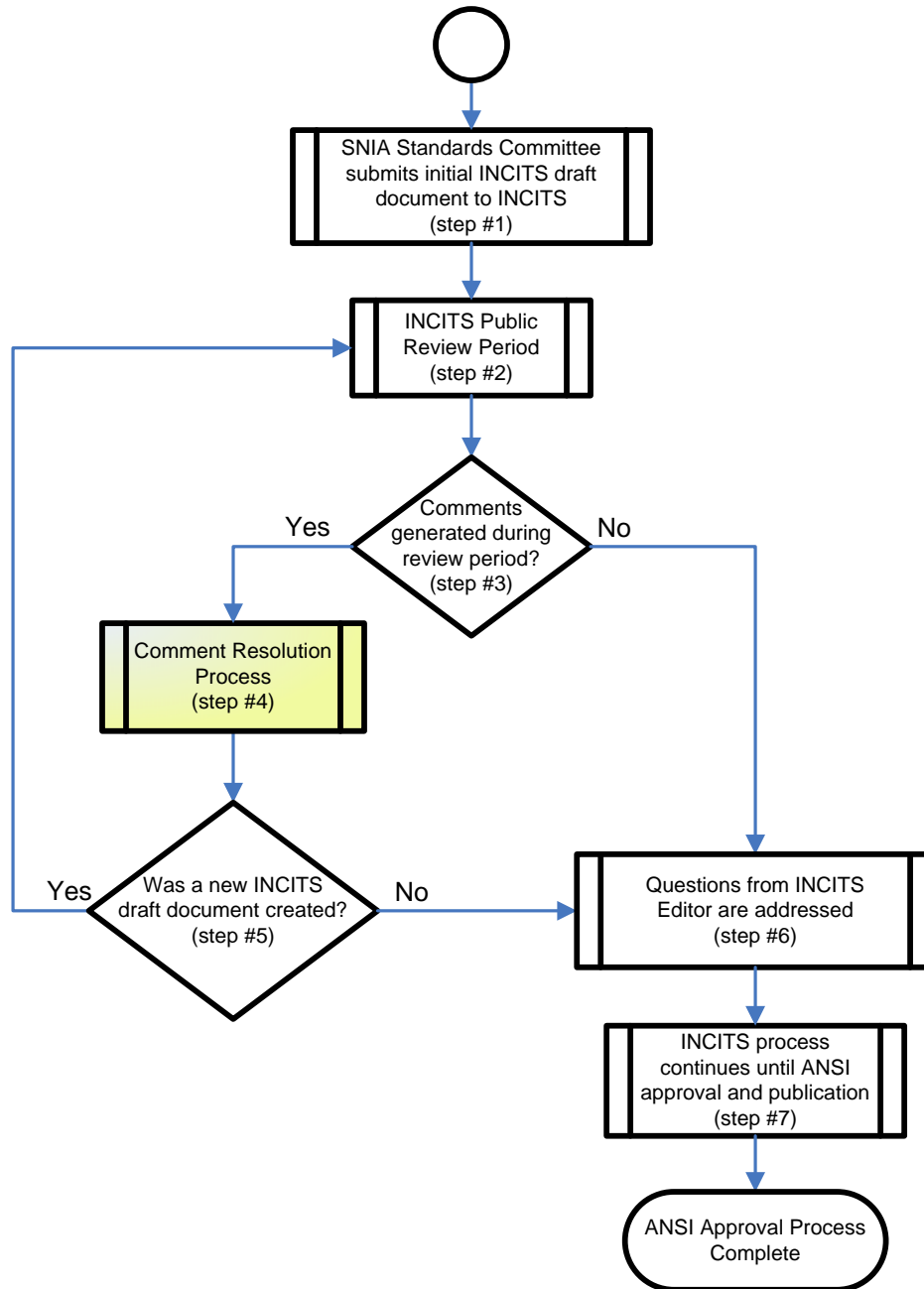
The *ANSI Approval Process* is the part of the SNIA Standardization Process that handles taking the draft INCITS standard through ANSI for ANSI approval.

SNIA Technical Work Group Policies & Procedures

- 1) The SNIA Standards Committee submits the initial INCITS draft document to INCITS.
- 2) The INCITS Public Review takes place, during which Comments may be generated.
- 3) If no Comments were generated during the INCITS Public Review, processing continues with step 6.
- 4) Comment Resolution Process (section 6.4.5.4).
- 5) If a new INCITS draft document was created as a result of the Comment Resolution Process (section 6.4.5.4), processing continues with step 2.
- 6) Questions from the INCITS Editor are addressed.
- 7) The INCITS process continues until ANSI approval and publication.
- 8) ANSI Approval Process is complete.

SNIA Technical Work Group Policies & Procedures

ANSI Approval Process



6.4.5.3 ISO Approval Process

The *ISO Approval Process* is the part of the SNIA Standardization Process that handles taking the approved ANSI standard through ISO for ISO approval.

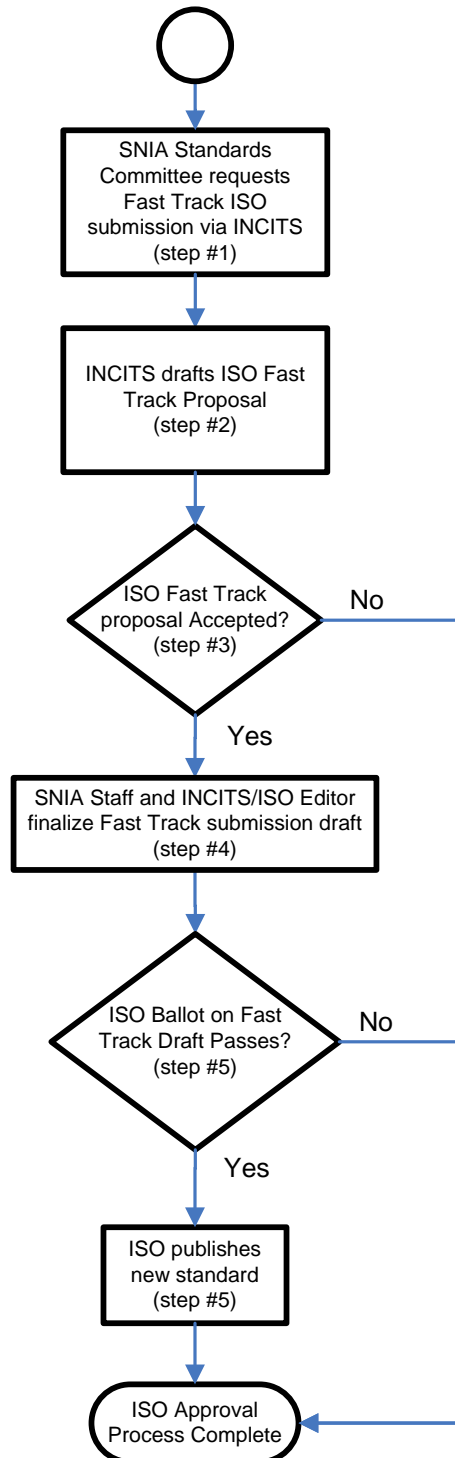
- 1) SNIA Standards Committee requests Fast Track ISO submission via INCITS.

SNIA Technical Work Group Policies & Procedures

- 2) INCITS drafts ISO Fast Track Proposal.
- 3) If ISO Fast Track proposal is rejected, processing continues with step 6.
- 4) SNIA Staff and INCITS/ISO Editor finalize Fast Track submission draft.
- 5) If ISO ballot on Fast Track Draft passes, ISO publishes the new standard.
- 6) ISO Approval Process is complete.

SNIA Technical Work Group Policies & Procedures

ISO Approval Process



SNIA Technical Work Group Policies & Procedures

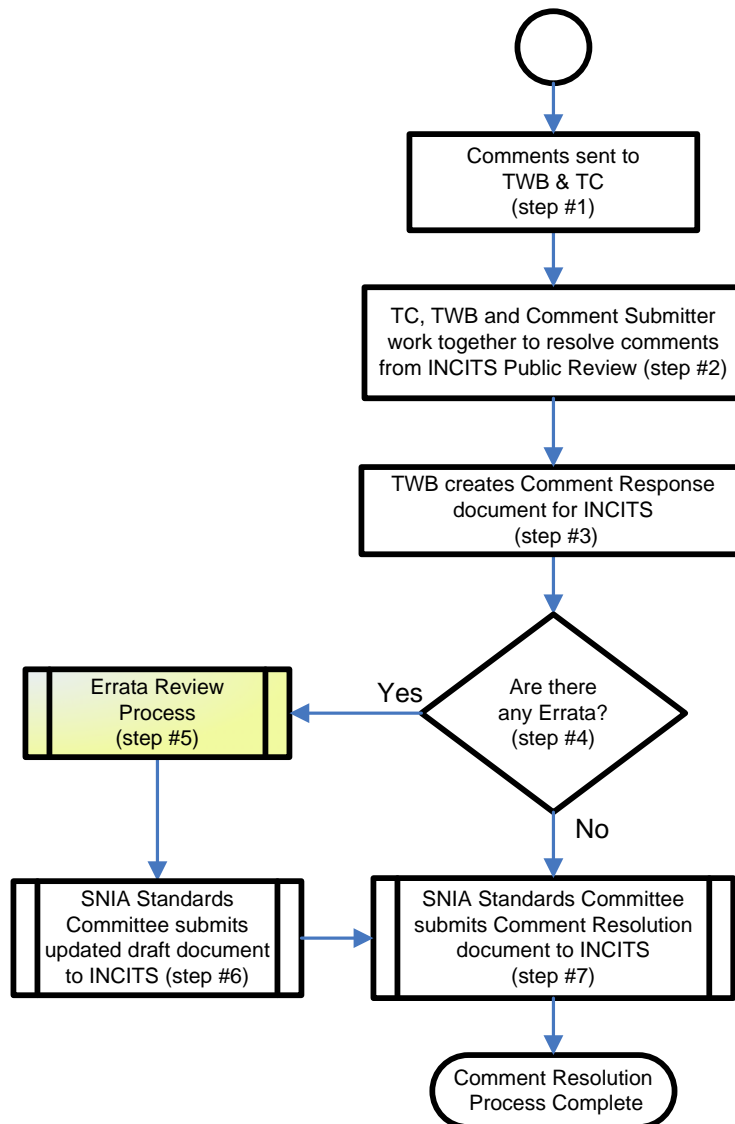
6.4.5.4 Comment Resolution Process

The *Comment Resolution Process* is the part of the SNIA Standardization Process that handles the review and resolution of INCITS public review comments.

- 1) Comments received during INCITS public review are sent to the developing TWB and the TC, as they are received.
- 2) The TC, the developing TWB and the comment submitter work together to resolve comments from INCITS public review.
- 3) The developing TWB creates a *Comment Resolution* document for INCITS.
- 4) If no Errata exist for the document, processing continues with step 7.
- 5) Errata Review Process (section 6.4.6).
- 6) SNIA Standards Committee submits updated draft document to INCITS.
- 7) SNIA Standards Committee submits *Comment Resolution* document to INCITS.
- 8) Comment Resolution Process complete.

SNIA Technical Work Group Policies & Procedures

Comment Resolution Process



6.4.6 Errata Review Process

From the time a specification is submitted to the TC for approval to the time it has been approved by the SNIA Membership, problems in the specification may be discovered. These issues and their resolution are tracked by the developing TWB in an *Errata Document*. No changes are made to the specification currently in an approval process.

The Errata Review Process below defines how the Errata Document is reviewed, approved, and integrated into a draft specification. This process takes place in both the Architecture Approval Process (section 6.4.4) and the SNIA Standardization Process (section 6.4.5).

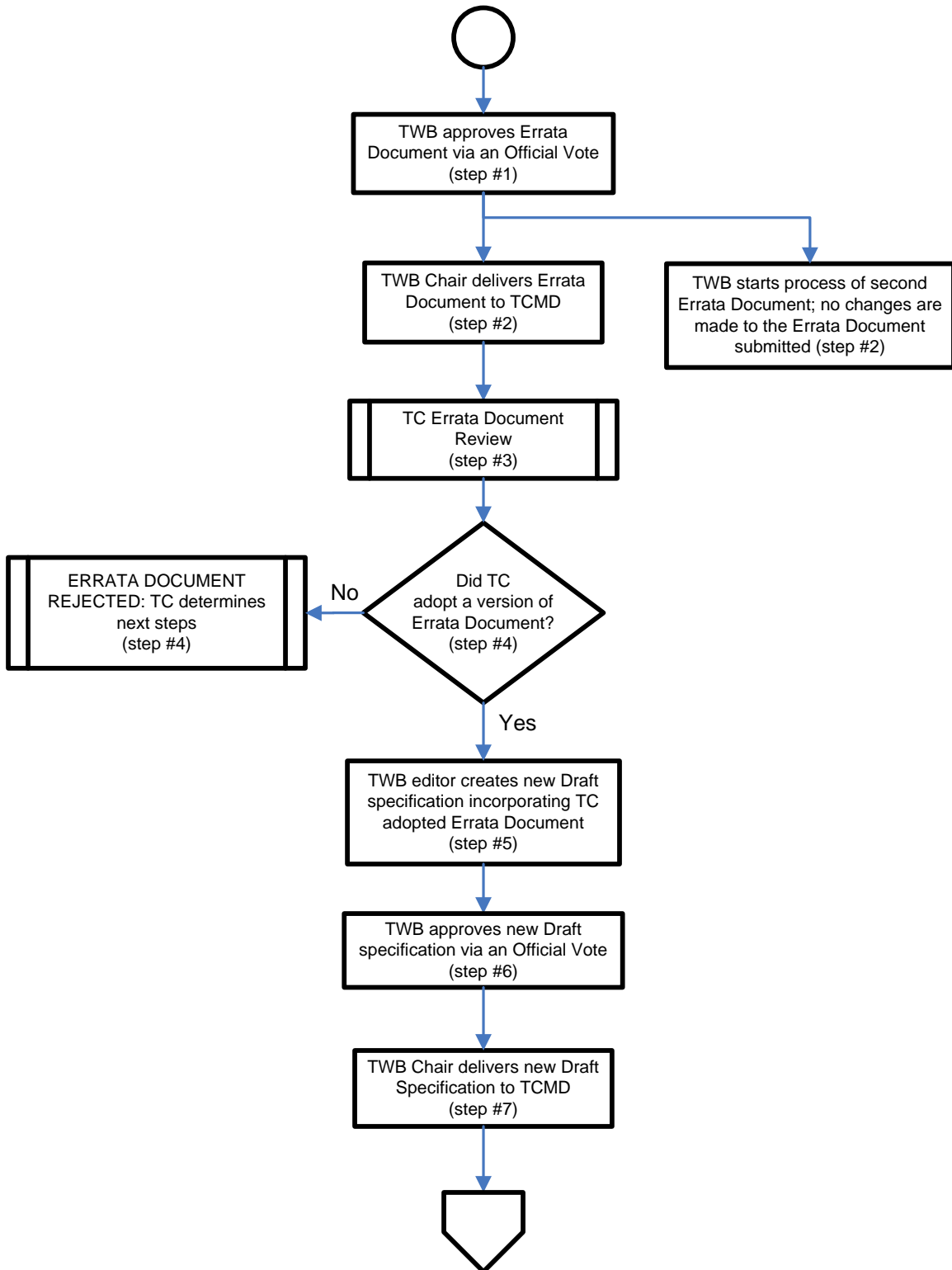
The steps in the Errata Review Process are:

SNIA Technical Work Group Policies & Procedures

- 1) The developing TWB shall approve the Errata Document by an Official Vote (section 11.1).
- 2) The Chair of the developing TWB shall inform the TCMD of the results of the vote, and supply a copy of the Errata Document. Once the document is delivered to the TCMD, the developing TWB starts the process of creating a second Errata document for the original Technical Work submitted. No further changes shall be made to the original Errata Document submitted.
- 3) The TC reviews the Errata Document. For each change in the Errata Document the TC considers the potential that the Errata item would change a SNIA Member's support as well as the possibility that Essential Claims may be created.
- 4) If the TC adopts a version of the Errata Document the processing continues with the next step and the SNIA Board is notified. Otherwise the Errata document has been rejected and the TC determines the next step.
- 5) The document editor for the developing TWB shall create a new draft specification incorporating the TC adopted Errata Document.
- 6) The developing TWB shall approve the new draft specification by an Official Vote (section 11.1).
- 7) The Chair of the developing TWB shall inform the TCMD of the results of the vote, and supply a copy of the new draft specification.
- 8) The TC reviews the draft specification and conducts a TC approval vote.
- 9) If the TC approves the new draft specification then processing continues with the next step and the SNIA Board is notified. Otherwise, the draft specification was rejected and the TC determines the next steps.
- 10) During the TC Approval Process in step 8 above, the TC may determine that an additional SNIA Membership Vote and/or Call for IP Disclosure is needed. If so, the SNIA Membership Vote and/or Call for IP Disclosure process is initiated.

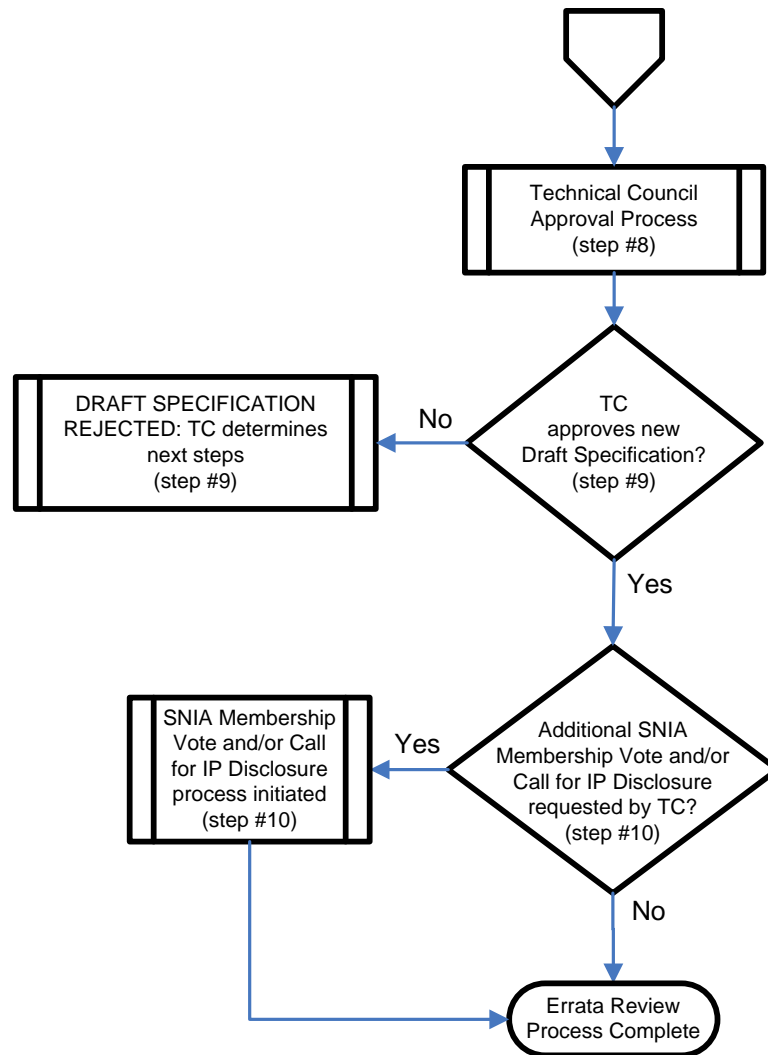
SNIA Technical Work Group Policies & Procedures

Errata Review Process



SNIA Technical Work Group Policies & Procedures

Errata Review Process (continued)



6.5 Test Specifications

When a TWB creates SNIA Technical Document with portions that can be tested for compliance, for example an API specification, then the TWB should create a Compliance Test Specification that defines how testing for compliance to the SNIA Technical Document can be performed.

Since the experts who create a SNIA Technical Document are best qualified to define how compliance testing should be done, it is strongly recommended that the TWB work with the TCMD to assure that a Compliance Test Specification is produced.

SNIA Technical Work Group Policies & Procedures

7 Development and Release of SNIA Software Technical Work

The development and release of SNIA Software Technical Work is governed by the policies and procedures defined in this section.

Software by itself shall not establish a standard or specification to which compliance or conformance may be claimed.

7.1 Definitions

The term Technical Work used in this section relates to SNIA Software Technical Work. The term Technical Work as it relates to other categories such as SNIA Architecture and Document Technical Work is described elsewhere in this document (section 6.1).

Technical Work is technical material that is developed, created, modified, or accepted by a Technical Working Body (TWB) in the course and scope of its activities. The technical material may be in the form of architectures, specifications, white papers, presentations, proposals, software, etc. This statement is a summary of the SNIA IP Policy.

The following are examples of Technical Work:

1. Technical material that is offered to and accepted for consideration by the SNIA as a basis for further SNIA work.
2. Technical material that is offered to and accepted by the SNIA for adoption as SNIA Software.
3. Technical material that is created, developed, modified, or accepted by a TWB in the course of its work.
4. Technical material that is the end product of a TWB and has not yet been approved as SNIA Software.

A Software Module is an individual item of software code, binary, executable, etc, typically organized as a single file. A Software Module in the context of TWB activity is Technical Work.

A Software Package is a collection of Software Modules and associated documentation. A Software Package is the unit of approval and release for SNIA Software. A Software Package is the typical scope of a SNIA Software Work Item. A Software Package in the context of TWB activity is Technical Work.

7.2 Licenses, Copyrights and Disclaimers

Each Software Module developed by a TWB shall include, at the beginning of the module:

1. A copyright notice as follows:
“Copyright (c) <current and previous years>, Storage Networking Industry Association”
2. The complete text of an approved outbound software license(s).

SNIA Technical Work Group Policies & Procedures

3. The complete text of the approved inbound software license(s).
4. Other licenses and copyrights as applicable.

Each Software Package shall include a text file describing all of the copyright holders and software licenses that apply to the package.

Each Software Package shall include a ReadMe.txt file which defines the applicable SNIA Software Package classification for the software package.

7.3 Software Package Classifications

Any Technical Work produced by a TWB that is a software package shall be classified in one of the following ways. The software package's classification is what governs the approval procedure to have the document published and released to the public. The Charter and Work Items of the TWG that develops a software package shall determine the classification to be used.

7.3.1 In-Development Software Package Classifications

The following classifications cover cases where a software package is still under development in a TWB. Any software packages covered by this classification are expected to incur significant change before the Work Item to which they refer is completed.

7.3.1.1 Internal Use Draft

All software packages that have not completed the Software Release Process (section 7.4.1) shall be classified as an *Internal Use Draft*.

An *Internal Use Draft* is an internal software and documentation of the developing TWB and may not be released outside of the TWB except for the purpose of release approval. *Internal Use Draft* Software Packages shall have the following statement, or equivalent, included in the Software Package:

“For SNIA <Base TWB> Internal Use Only. This *Internal Use Draft* is a Software Package of the <Base TWB> that has not been approved for release outside of the membership of the <Base TWB>. This draft may not represent the position of the <Base TWB>. Suggestions for revision should be sent to <Base TWB> at <Base TWB email address>.”

7.3.1.2 Working Draft

All software packages that have not completed an Approval Process shall be classified as a *Working Draft*, unless specified otherwise below. Some SNIA Technical Work may not progress beyond the Working Draft classification. A software package shall be approved by an Official Vote of the TWB in order to progress beyond this classification (section 7.4.1).

Publication of a *Working Draft* is not an assertion of consensus, endorsement, or technical quality. *Working Draft* software packages shall have the following statement, or equivalent, included in the software package:

SNIA Technical Work Group Policies & Procedures

“Release of this *Working Draft software and associated documentation* for review and comment has been approved by the <Base TWB>. This draft represents a “best effort” attempt by the <Base TWB> to reach preliminary consensus, and it may be updated, replaced, or made obsolete at any time. This software and associated documentation should not be used as reference material or cited as other than a “work in progress.” Suggestions for revision should be directed to ...”

Working Draft software and associated documentation for review may be released as source code, in binary executables, or both.

7.3.1.3 Trial-Use Draft (analogous to beta test)

The purpose of this classification is to provide a stable draft of the proposed SNIA Software to encourage prototype implementations. It should be used when it is believed that implementation experience is needed before the content of the proposed software can be finalized and submitted for SNIA Approval. *Trial-use-Draft* software packages shall have the following statement, or equivalent, included in the software package:

“Publication of this *Trial-Use Draft* software and associated documentation for trial use and comment has been approved by the SNIA Technical Council and the <Base TWB>. Distribution of this draft material for comment shall not continue beyond () months from the date of publication. It is expected, but not certain that following this () month period, this draft material, revised as necessary will be submitted to <the SNIA Membership and/or Technical Council> for final approval. Suggestions for revision should be directed to ...”

In the case where the developing TWB is the TC, the following statement shall be used:

“Publication of this *Trial-Use Draft* software and associated documentation for trial use and comment has been approved by the SNIA Technical Council. Distribution of this draft specification for comment shall not continue beyond () months from the date of publication. It is expected, but not certain that following this () month period, this draft material, revised as necessary will be submitted to <the SNIA Membership and/or Technical Council> for final approval. Suggestions for revision should be directed to ...”

7.3.2 Completed Software Package Classifications

The following classifications cover cases where a software package has completed development in a TWB. Any software covered by these classifications is expected to change only in response to problems identified during the Technical or Software Approval processes. A TWB may view a Work Item as being completed when the Technical Work to which it refers reaches one of these classifications.

7.3.2.1 SNIA Technical Position

SNIA Software that has been approved by the TWB, TC, SNIA Board and MEMBERS is a SNIA Technical Position. The SNIA Technical Position classification covers software packages that have completed all SNIA approval processes for SNIA Software and therefore represent a clear consensus position of the organization.

A SNIA Technical Position software package shall include the following statement, or equivalent:

SNIA Technical Work Group Policies & Procedures

“This software and associated documentation has been released and approved by the SNIA. The SNIA believes that the ideas, methodologies and technologies described in this material accurately represent the SNIA goals and are appropriate for widespread distribution. Suggestions for revision should be directed to ...”

Technical Work that has been approved as SNIA Software is a SNIA Technical Position.

7.4 Software Package Approval Processes

The unit of approval is an entire software package.

Four different approval processes are documented, as follows:

- 1) Software Release Process
- 2) IP Review Process
- 3) SNIA Software Approval Process
- 4) SNIA Software Errata Review Process

The Software Release and IP Review processes operate on Technical Work that is still in development. The other processes cover the approval of completed Technical Work by the entire SNIA organization.

In the cases where the developing TWB is the TC, redundant steps should be combined.

7.4.1 Software Release Process

The Release Process is followed when a TWB that is developing SNIA Software wishes to make Work that is still under development available to a wider audience than the TWB’s own membership. That audience may be defined as specific other TWBs; MEMBERS; specific consultants, partners, and other interested parties outside of the SNIA; or the public.

The principal goal of releasing In-Development SNIA Technical Work is to gain additional review and feedback from a larger audience and to help accelerate its development, to encourage developers to implement the Work to help identify potential issues during the development process, to gather more experimental data, and to speed up the final development of the software,

The steps in the release process are:

1. The developing TWB shall approve publication of the Technical Work in one of the In-Development Work Classifications by an Official Vote (section 11.1). The motion shall include identification of the intended audience.
2. The Chair of the developing TWB shall inform the TCMD of the results of the vote, and shall supply a copy of the “ready to release” software package to the TCMD. The TCMD will then notify the TC of the availability of the Technical Work.
3. A formal TC Decision on the Technical Work is required. At this time, a SNIA Board decision is also required. A TC meeting shall be planned to include

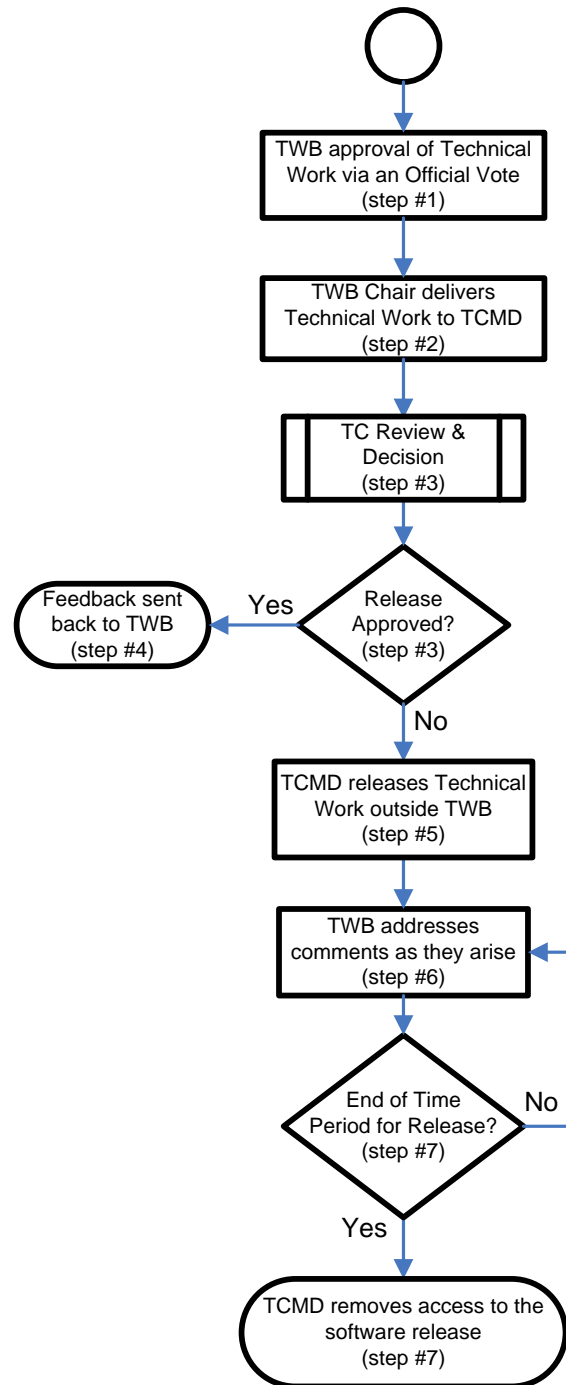
SNIA Technical Work Group Policies & Procedures

members of the developing TWB. The agenda of that meeting will include a presentation by the developing TWG that addresses the following points:

- a. Purpose for releasing the software
 - b. Release notes that will accompany the software release.
 - c. Why the software is ready for release
 - d. Who the software is being released to
 - e. When the software will be released
 - f. The time period the software will be released for
 - g. Plan for updating and/or fixing problems
 - h. Any plans for supporting the release
 - i. Anything else that the developing TWB wishes to bring to the attention of the TC
4. If the TC does not approve the requested release, the TC shall provide written feedback to the developing TWB stating why release approval was not granted and what additional work or changes are necessary before initiating a new release approval request starting at step 1.
 5. The TCMD will release the Technical Work to the intended audience by posting the software package to the web site or other means and making an announcement to the intended audience. Where the release is limited to a specific time period, that period shall be identified in the announcement.
 6. During the release period the developing TWB shall address comments (bug reports, suggestions, etc.) as they arise. Comments received from non-SNIA member organizations, and from MEMBERS that are not opted out from the developing TWBs, shall always be reviewed, and the commenting party shall be informed of the disposition of those comments. Comments from MEMBERS that are opted out from the developing TWB may or may not be reviewed, and disposition returned to the commenter, at the discretion of the developing TWB.
 7. Where the release is limited to a specific time period, at the completion of that period the TCMD will ensure that the Technical Work ceases to be available outside of the developing TWB.

SNIA Technical Work Group Policies & Procedures

Software Release Process



7.4.2 IP Review Process

The purpose of the IP Review Process is to implement the SNIA IP Policy, i.e. to seek to identify at an early stage, situations where use of SNIA Software may require a license of patents (section 9).

SNIA Technical Work Group Policies & Procedures

Execution of an IP Review requires a draft software package (not necessarily complete or self-consistent) which can be reviewed by MEMBERS. This software package must include the full source (as it exists) and any build documentation.

7.4.2.1 Periodic IP Review

Technical Work that has been designated SNIA Work-in-Progress and has progressed to the point of having a draft deliverable (possibly incomplete or inconsistent) shall, at least every six months, execute the Periodic IP Review Process.

- 1) The developing TWB shall approve by an Official Vote (section 11.1) the release of a Working Draft software package to the MEMBERS for the purpose of an iteration of the periodic IP Review.
- 2) The Chair of the developing TWB shall inform the TCMD of the results of the TWB vote, and shall supply a copy of the software package to the TCMD. The TCMD will then notify the TC of the availability of the software package.
- 3) The TC will determine whether the software package is ready for IP Review and make its recommendation to the SNIA Board. If the TC determines the software package is not ready, the software package shall be returned to the developing TWB with comments from the TC.
- 4) The SNIA Board issues a Call for IP Disclosure to the MEMBERS.
- 5) Within 7 days of the end of the 60 day Call for IP Disclosure period, the SNIA Board sends the results of the IP Review to the TC and the Chair of the developing TWB.
- 6) If during the Call for IP Disclosure period statements regarding possible Essential Claims were disclosed by the MEMEBRS, then the TC shall determine the next steps.

The Periodic IP Review Process shall not be understood or used as an interruption of TWB progress on a Work Item. Rather, it is an asynchronous process that should be planned and executed as routine. The only situation where progress on the Work Item may be interrupted is in the event of results of the IP Review that require step 6, in which case the TC determines the necessary next steps.

A flowchart describing this process (Periodic IP Review Process) can be found in section 6.4.2.1 (the process is the same as for SNIA Technical Documents).

7.4.2.2 Final SNIA Software IP Review Process

Every software package produced by a TWB that seeks to be approved as SNIA Software shall be subject to the Final SNIA Software IP Review Process.

The Final SNIA Software IP Review Process should normally be executed concurrently with the SNIA Membership Vote to adopt the software package as SNIA Software and on the same software package that is being submitted for SNIA Membership Vote. Any

SNIA Technical Work Group Policies & Procedures

exceptions to this situation shall be proposed to the TC with as much advance notice as possible and approved by the TC. The process steps below assume the normal case where the Final SNIA Software IP Review Process piggy-backs on the SNIA Software Approval Process and addresses only the incremental additions of the Final SNIA Software IP Review Process.

- 1) Any results of the Call for IP Disclosure (MEMBER statements regarding possible Essential Claims) should be forwarded to the Chair of the TWB no later than seven (7) days after the Call for IP Disclosure period ends. These results are also to be made available on the SNIA web site.
- 2) The TWB, in consultation with the TCMD, the TC, and at the TC's discretion SNIA Legal Counsel, shall determine what, if any, actions should be taken based upon the results of the IP Review.

7.4.3 SNIA Software Approval Process

Completion of the SNIA Software Approval Process is required in order to adopt and release completed SNIA Software as a SNIA Technical Position. Specifically, completion of this process is necessary when SNIA political, promotional, or educational support is desired.

Because of the lengthy and formal nature of the SNIA Software Approval Process, it should normally be the case that a draft of the material being moved by the TWB into the SNIA Software Approval Process has been previously exposed to the MEMBERS for technical review via the Software Release Process (section 7.4.1) and that the results of this review have been incorporated into the document being moved into the SNIA Software Approval Process.

The steps in the SNIA Software Approval process are:

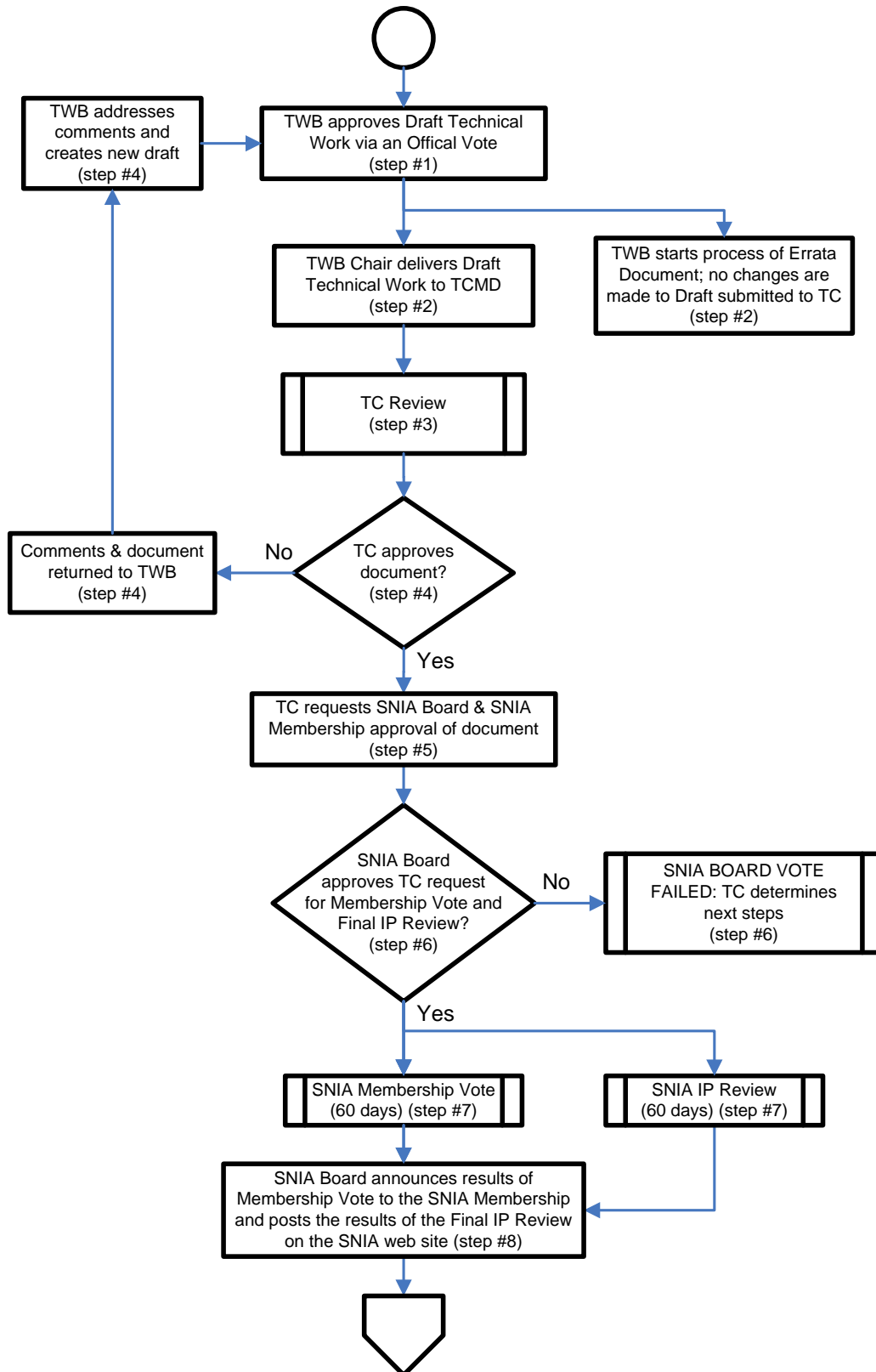
- 1) The developing TWB shall approve publication of the draft Technical Work (software package) by an Official Vote (section 11.1). The developing TWB then starts the process of creating an updated Software Package for the Technical Work submitted.
- 2) The Chair of the developing TWB shall inform the TCMD of the results of the vote, and supply a copy of the Technical Work.
- 3) The TCMD will schedule a vote of the TC to approve the release of the Technical Work.
- 4) If the TC did not approve the release of the Technical Work, then the Technical Work and TC comments shall be returned to the developing TWB, otherwise the process continues with the next step.
- 5) The TC shall request a SNIA Board motion to approve the draft Technical Work for presentation to the MEMBERS for approval as SNIA Software and for a concurrent Final SNIA Software IP Review Process (section 7.4.2.2).

SNIA Technical Work Group Policies & Procedures

- 6) If the SNIA Board approves the release of the Technical Work, then the process continues with the next step. Otherwise, the SNIA Board vote failed and the TC will determine the next steps.
- 7) Upon SNIA Board approval, the draft Technical Work will be made available to the MEMBERS for approval as SNIA Software and for a concurrent Final SNIA Software IP Review Process (section 7.4.2.2), which is a 60-day process.
- 8) Upon completion of the above step, the TCMD shall work with the SNIA Secretary to ensure that the SNIA Board announces the results of the SNIA Membership Vote to the SNIA Membership. The TCMD should also work with the SNIA Secretary to post the results of the Final SNIA Software IP Review on the public-facing Standards web pages and on the internal-facing Standards web pages.
- 9) If MEMBERS disclosed possible essential claims, then the TC will determine the next steps. Processing still continues with the following step.
- 10) If the SNIA Membership Vote passed, then the process continues with the next step. Otherwise the SNIA Membership Vote failed, and the SNIA Board and the TC shall determine the next steps.
- 11) The SNIA Staff shall publish the Technical Work (software package) as a SNIA Technical Position on the public side of the SNIA web site.
- 12) If the developing TWB has not identified Software Errata and developed an updated Software Package, then the SNIA Software Approval Process is complete, otherwise the Software Errata Review Process (section 7.4.4) is performed and processing is continued with the next step.
- 13) If a SNIA Membership Vote or Call for IP Disclosure was started as a result of the Software Errata Review Process (section 7.4.4), then the TC will determine the next steps. Otherwise processing is continued with the next step.
- 14) The SNIA Staff shall publish the corrected SNIA Technical Position (software package).

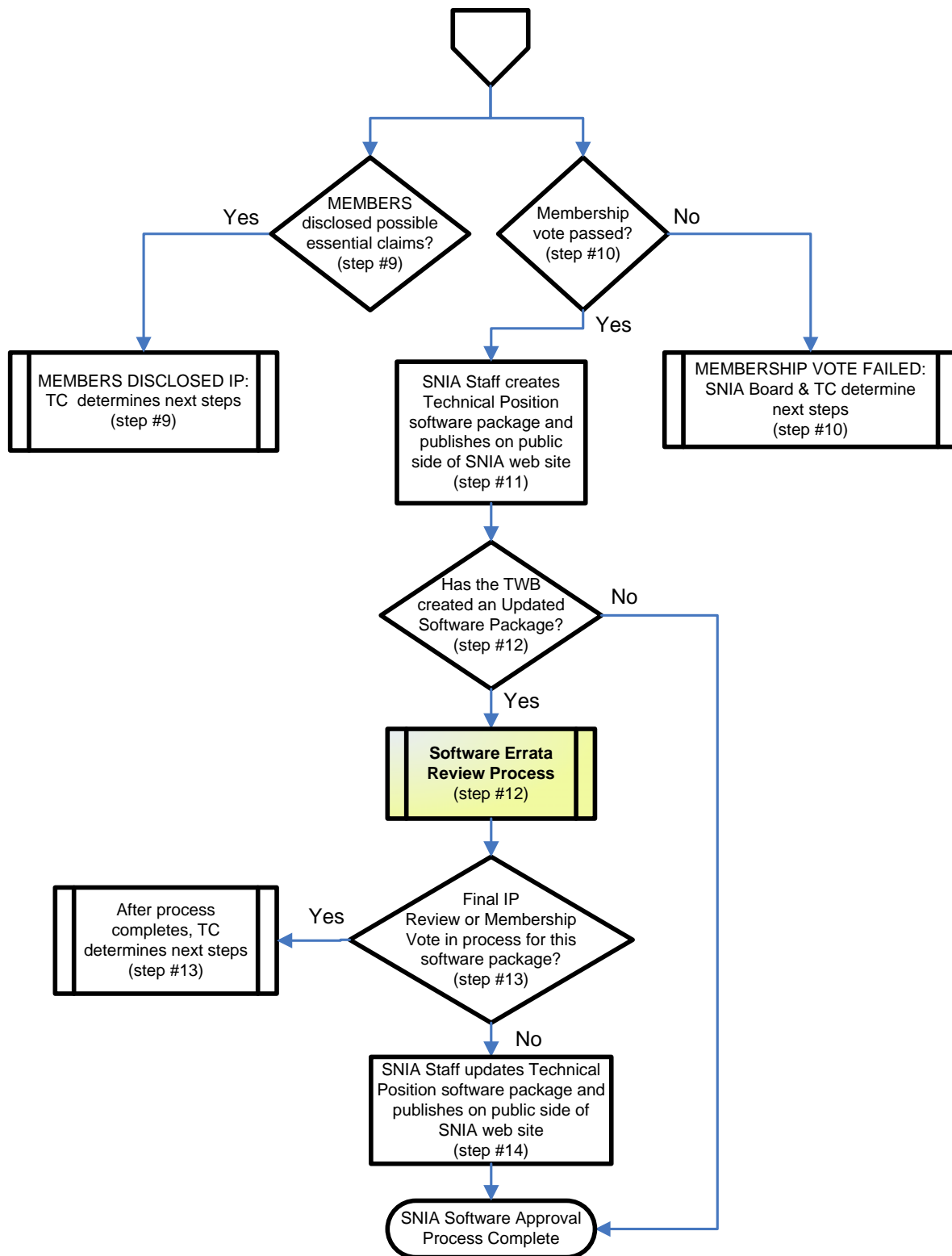
SNIA Technical Work Group Policies & Procedures

SNIA Software Approval Process



SNIA Technical Work Group Policies & Procedures

SNIA Software Approval Process (continued)



SNIA Technical Work Group Policies & Procedures

7.4.4 Software Errata Review Process

The Software Errata Review Process specifies the approval process for addressing problems in the software package (bugs) found while the Software Package is undergoing final approval or after final approval as SNIA Software.

7.4.4.1 Software Errata Rationale

Final approval of a Software Package as SNIA Software takes a significant amount of time during which problems (bugs) in the content of the Software Package may be discovered. It is also necessary that the material undergoing approval be stable.

Therefore, the developing TWB shall establish a copy (or copies) of the software package in which problems are corrected. When problems are discovered, the TWB should analyze, prioritize, and categorize the necessary changes for inclusion either in an updated Software Package or in a future version of the Software Package. The former case is for Software Errata, and is addressed in this section; the latter case is addressed as a distinct, new version of the Software Package that must undergo the full approval and release processes for SNIA Software.

In general, it is desired that the Software Package, as submitted, complete the approval process and that changes to correct problems be limited in scope and impact, with more substantial changes being deferred to a future version of the Software Package and undergo full approval as part of that package. In unusual circumstances, the Software Package may be withdrawn from approval consideration and resubmitted at a later date.

Similarly, after a Software Package has been approved as SNIA Software, problems (bugs) may be found. The same process and considerations apply as in the case of Software Errata found during final approval, and the same process for addressing these problems shall be followed. When changes are made to SNIA Software as Software Errata, the result is SNIA Software.

Software Errata are not intended to be used (and must not be used) to circumvent either the rights of SNIA Members in the approval process or the intent of the SNIA IP Policy regarding disclosure of Essential Claims. To ensure this, decisions as to which changes may be made as Software Errata versus which changes should undergo a full release and approval process must be made with care and, when in doubt, biased toward sending changes through the full release and approval processes. These judgments are made by the TC, informed by the developing TWB.

The SNIA does not and cannot provide corrections to SNIA Software in a sufficiently real-time manner to enable vendors to address critical customer problems through corrections provided in SNIA Software. Instead, this is a vendor responsibility. The typical path for the situation of a critical customer problem is that the vendor (or vendors) work with the customer to address the immediate customer situation (including correcting problems in a SNIA Software Package) and then, as members of the developing TWB, provide the problem report and correction to the TWB for consideration as Software Errata or in a future version of the Software Package.

SNIA Technical Work Group Policies & Procedures

7.4.4.2 Software Errata Review

The Software Errata Review Process below defines how Software Errata are reviewed, approved, and released as an updated Software Package. This process takes place during and/or subsequent to the SNIA Software Approval Process defined previously.

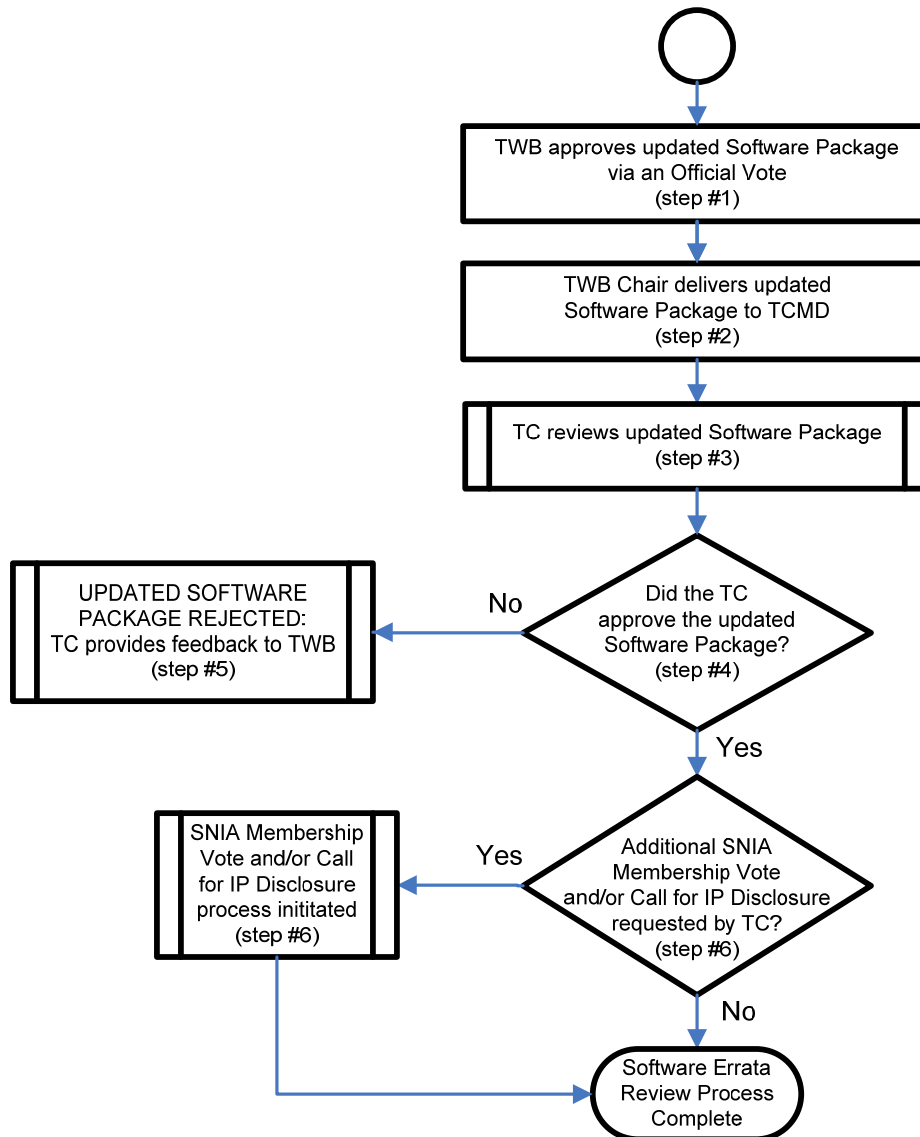
For SNIA Software, the developing TWB is responsible for analyzing, categorizing, and prioritizing problem reports and the corrections required. The result of these activities is a sequence of Software Package updates, each of which must be approved through the Software Errata Review Process.

The steps in the Software Errata Review Process are:

- 1) The developing TWB shall approve, by an Official Vote (section 11.1), the updated Software Package for submission to the TC as Software Errata. The developing TWB may then immediately begin work on the next updated Software Package.
- 2) The Chair of the developing TWB shall inform the TCMD of the results of the vote, and supply a copy of the updated Software Package, including a description of each problem corrected and the nature of each correction. Means that allow the easy identification of the specific changes made to the contents of the package should be provided.
- 3) The TC reviews the updated Software Package. For each change, the TC considers the potential that the Errata item would change a SNIA Member's support as well as the possibility that Essential Claims may be created. The TC also considers whether the changes require a SNIA Membership Vote and/or Call for IP Disclosure.
- 4) The TC shall complete its review of the updated Software Package and provide its conclusions to the TWB within 3 weeks of receiving the updated Software Package. The TC should strive to expedite these reviews whenever possible.
- 5) If the TC does not approve the updated Software Package, the TC communicates its decisions and recommendations to the developing TWB and determines the next steps.
- 6) If the TC determined that an additional SNIA Membership Vote and/or Call for IP Disclosure is needed, then the SNIA Membership Vote and/or Call for IP Disclosure process is initiated. In any event, the SNIA Board is notified of the outcome of the Software Errata Review Process.

SNIA Technical Work Group Policies & Procedures

Software Errata Review Process



7.5 Tests and Test Specifications

When a TWB creates SNIA Software, the TWB is encouraged to include a test suite for the software in the software package.

When a TWB creates SNIA Software, the TWB is encouraged to include a test specification for the software in the software package.

SNIA Technical Work Group Policies & Procedures

8 Development and Release of Other Software Technical Work

Policies and procedures for Other Software Technical Work are not yet defined, and Other Software Work Items are not allowed at this time.

SNIA Technical Work Group Policies & Procedures

9 SNIA Architecture and SNIA Software Intellectual Property Process

9.1 Designation as SNIA Architecture or SNIA Software

SNIA Architecture and SNIA Software are defined by the SNIA Bylaws and the SNIA IP Policy (section 1.1). To ensure the SNIA IP Policy and its requirements are applied to the Technical Work being done in the TWGs, each Work Item shall be declared, if applicable, as delivering a possible candidate for SNIA Architecture or SNIA Software status.

As part of the TWG Work Item approval process (section 2.3.2), the TC shall determine if a Work Item will be considered as potentially on a SNIA Architecture or SNIA Software path, and if so, the TC shall inform the SNIA Board and, through the SNIA Board, the MEMBERS.

9.2 IP Review

9.2.1 Periodic IP Review

In accordance with the SNIA IP Policy, the SNIA shall have periodic Intellectual Property reviews of technical material designated as being *SNIA Work-in-Progress*. It is the objective of the SNIA IP Policy to have such technical material reviewed in order to have any potential intellectual property (Essential Claims) identified at the earliest possible time. The SNIA IP Policy states that these periodic Intellectual Property reviews should take place at least once every 6 months.

Periodic IP Reviews shall be conducted in accordance with the SNIA IP Policy and its requirements. During a Periodic IP Review, the technical material designated as currently being on a SNIA Architecture or SNIA software path (SNIA Work-in-Progress) shall be made available for IP Review to the MEMBERS. The SNIA Board shall issue a Call for IP Disclosure to start each Periodic IP Review.

The process for handling Periodic IP Reviews for SNIA Architecture and Document Technical Work is addressed in section 6.4.2.1, and the process for handling Periodic IP Reviews for SNIA Software Technical Work is addressed in section 7.4.2.1.

9.2.2 Final IP Review

In accordance to the SNIA IP Policy, technical material that is undergoing final approval as SNIA Architecture or SNIA Software shall also be provided to the MEMBERS for IP Review.

9.2.3 IP Review follow-up

In those cases where IP Reviews yield Essential Claims with which the SNIA technical material may conflict, the developing TWB shall work with the TCMD and the TC on ways to address the situation.

SNIA Technical Work Group Policies & Procedures

10 Meeting Attendance

To assure fairness in the voting process, only TWG members who have regularly attended a specific TWG are allowed to vote in that TWG. The concepts of *Active TWG Member* and *Active TWG Voting Member* are defined as follows.

10.1 Representative

A Representative is an individual who is attending a meeting on behalf of a Voting Member or Participant as defined by the SNIA Bylaws.

10.2 Active TWG Member

An *Active TWG Member* is a Participant or Voting Member, as defined by the SNIA Bylaws:

- In the case of a newly formed TWG, a Participant or Voting Member who is represented at the first or second meeting or both is considered an *Active TWG Member* through the third meeting.
- Thereafter a Participant or Voting Member who has been represented in two of the three previous consecutive TWG meetings (face-to-face or conference call) is considered an *Active TWG Member* through the next meeting

A Participant or Voting Member is considered to have been represented if it had a Representative who was physically present at a meeting or called in via conference call.

If a Participant or Voting Member is not represented at an *Informal Meeting* (section 4.5) then that meeting will not be used to determine their *Active* status. If a Participant or Voting Member is represented at an *Informal Meeting* then that meeting shall be used to determine their *Active* status. At most one *Informal Meeting* may be counted towards *Active* status.

10.3 Active TWG Voting Member

A SNIA Voting Member company who meets the requirements of an *Active TWG Member* in a specific TWG shall be considered an *Active TWG Voting Member* for that specific TWG.

10.4 Chairs Attendance

All TWG Chairs, and Co-Chairs, including Sub Group Chairs and Co-Chairs, are individually required to meet the attendance criteria for *Active TWG Member* status.

10.5 Quorum

Quorum for an official vote of a TWG is a majority of the currently *Active TWG Voting Members*.

SNIA Technical Work Group Policies & Procedures

11 TWG Voting

When a vote is required, the Chair determines the appropriate voting procedure from Official Vote (section 11.1) or Rough Consensus (section 11.5), unless an Official Vote is specifically required by this document.

11.1 Official Voting Process

The following rules apply to the Official Voting process:

- Official votes for the release of any TWG Work Item outside the TWG must be announced a minimum of 10 days in advance on the TWG's email reflector, unless covered by granting of authority (section 11.3).
- Official votes may not take place at an *Informal Meeting* (section 4.5).
- A quorum (section 10.5) of a TWG is required for an Official Vote.
- Official voting is restricted to *Active TWG Voting Members* (section 10.3).
- There shall be at most one vote per *Active TWG Voting Member* (section 10.3).
- A vote shall be *Yes, No or Abstain*.
- An Official Vote shall be considered approved if the majority of the votes cast were *Yes*. Votes of *Abstain* shall not be considered in the count of votes cast when determining the majority vote.
- An Official Vote may be taken by the Chair asking for any objections to the motion being voted. If there are no objections then the Official Vote shall be considered passed unanimously. If there are any objections, a counted vote shall be conducted.
- Any vote to not approve the release of a work product must be accompanied by verbal or written justification based on technical and/or other considerations.

Results of an Official Vote shall be recorded in the minutes of the meeting in which it takes place, including whether the vote passed or failed. A roll call vote is required if requested by 2 or more Active TWG Voting Members. The voting results recorded for a roll call vote shall include the name of each Voting Member's Representative and how each Representative voted.

11.2 Official Vote Required

An Official Vote is required for all *Matters of Substance*. The following items are considered *Matters of Substance* and require an official vote of the TWG:

- Approval of meeting minutes

SNIA Technical Work Group Policies & Procedures

- Release of any Technical Material (Documents, Source code, etc.) outside the TWG
- Formation and Disbanding of Sub Groups
- Creation or Removal of Work Items
- Granting of Authority of an Official Vote (section 11.3)
- Election of Chairs

At any time, a Chair may determine an item is a matter of substance and call for an official vote. An Official Vote is also required if requested by 2 or more Active TWG Voting Members.

11.3 Grant Authority of an Official Vote

A TWG may take an Official Vote to grant authority to a designated TWG member or members (or a Sub Group) for handling a specific technical issue on the behalf of the TWG that would normally require an Official Vote of the TWG. When such a granting of authority takes place, it shall be recorded in the TWG meeting minutes, clearly defining the specific issue that will be handled, by whom it shall be handled, and the specific time period for which the authority is granted.

Those who have been granted authority shall abide by the policies and procedures defined in this document and restrict their work to the specific issue that they have been granted authority to handle. Any action taken in exercise of the granted authority shall be promptly reported in writing to the TWG and recorded in the minutes of a subsequent meeting.

During the development process that takes place in a TWG, sometimes a fast communication process between a TWG and an outside standards body is required. During this communication process, documents may need to pass between the two organizations frequently and during a short time period. Requiring an Official Vote of the TWG every time would hinder the development process and slow down the work. The ability for a TWG to Grant Authority via an Official Vote solves this issue and assures that the intentions of the majority of the TWG are met.

A TWG may revoke the Grant of Authority at any time by an Official Vote of the TWG.

11.4 Electronic Votes

A TWG may conduct an electronic vote based upon the following requirement:

The electronic vote shall be distributed to all the TWG members at least seven (7) days before the votes must be cast. However the vote is conducted, all votes for which a majority of the ballots cast are in the affirmative shall be deemed to have passed.

Abstentions shall not be counted as votes cast in determining whether or not a vote has passed. A record of all electronic votes shall be kept and included as part of the next set of TWG meeting minutes. The voting results recorded shall include the name of each

SNIA Technical Work Group Policies & Procedures

Voting Member's Representative and how each Representative voted. If a Voting Member casts multiple, different votes, then that Voting Member's vote is invalid and shall not be counted as having been cast. If two or more Active Voting Members object to the use of an electronic vote, an electronic vote shall not be used.

11.5 Rough Consensus

Not every decision made in a TWG or its Sub Groups requires an Official Vote. Most decisions can be made by the Chair determining rough consensus of the TWG members.

Rough Consensus can be declared via any method that the Chair believes gives appropriate guidance to the general will of the group. It is usually a technique that is capable of generally determining the will of the group. One method is to call for detractors to make their opinions clear, and the shortage of these opinions can be used to imply that the non-detractors are sufficient to be considered Rough Consensus.

An Official Vote is required if requested by 2 or more Active TWG Voting Members.

11.6 Appeal Process

Anytime any SNIA member has a problem with the way a decision has been made, either by official vote or rough consensus, they have the right to appeal the decision based upon the following process.

- The appeal must be made within 30 days of the contested decision.
- The initial appeal shall be made to the TCMD, in writing. The TCMD shall make a written decision on the appeal within 14 days based upon an investigation of the facts.
- If the SNIA member does not agree with the decision of the TCMD, they may submit a formal appeal in writing to the TC. The formal appeal must be made within 14 days of the decision by the TCMD.
- The TC shall then have 60 days to make a final written decision on the appeal.

SNIA Technical Work Group Policies & Procedures

12 SNIA Web Site

12.1 Automatic Opt-IN

When a person joins a TWG (via the Members-Only section of the SNIA web site), the person is added to the TWG membership roster and to the TWG email reflector. This process of joining is an automatic *Opt-IN* for the person's organization/company for the specified TWG. The rights and obligations of the person's organization/company are described in the SNIA IP Policy.

12.2 TWG Online Status

Part of a TWG Chair's responsibility shall be to ensure that the SNIA web site contains current information about their TWG. The TWG Chair, with the assistance of the TWG Secretary (if one exists), shall be responsible for making sure that the following are up to date and available on their TWG's section of the SNIA web site:

- TWG's Mission and Charter
- Program of Work and its current status
- Contact information for Chair(s), Secretary and all Chairs of Sub Groups
- Minutes
- Conference Call and Face to Face Meeting Schedule
- Completed Work Items

Contact the TCMD about how to update the SNIA web site.

12.3 Document Sharing

The Kavi web site allows documents and portions of each TWG's document folder structure to be shared with other SNIA groups. TWGs are hereby reminded that material not released outside of the TWG must not be shared with other groups. A general guideline is to share documents and folders only by exception, and with attention to the specific material being shared.

SNIA Technical Work Group Policies & Procedures

13 Technical Council Managing Director Communication

The TCMD represents all of the TWGs to the TC. Therefore, it is extremely important that the Chairs of all TWGs maintain an open communication channel with the TCMD, keeping the TCMD informed of progress, important issues and any roadblocks.

13.1 Required Notification

The TCMD shall be notified within 7 days in regards to the following items:

- New Sub Group Formation
- Creation/deletion/addition of TWG Work Items (section 2.3)
- Change in status of Chair or Co-Chairs in a TWG or any of its Sub Groups

SNIA Technical Work Group Policies & Procedures

14 Technical Work Group Reviews

TWGs are required to show evidence of ongoing merit and relevancy. The TCMD monitors TWGs and arranges for them to be reviewed by the TC when necessary.

14.1 “For Cause” Review

A TWG may be reviewed “for cause”, when there are specific issues that must be investigated.

14.1.1 “For Cause” Review Triggers

The following situations can lead to a “for cause” review of a TWG:

1. Absence of approved Work Items. Without any approved Work Items, a TWG may be dissolved after 90 days.
2. Failure to meet regularly.
3. Lack of participation. A TWG should have active members from at least three companies. Failure to meet this minimum level of participation should be reported to the TCMD by the TWG Chair or Co-Chair.
4. The TC decides to initiate a review of a TWG.

14.1.2 Limitations Under Review

When a TWG is placed under a “for cause” review, it shall be given the set of issues that caused the “for cause” review, along with a deadline for resolving the issues. The TWG should resolve the issues that resulted in the review within the given time period, to avoid additional actions being taken by the TC.

A TWG under a “for cause” review is expressly forbidden from publishing any of its member-developed material, with the exception of those materials required to complete the re-submission of a Charter and Program of Work. Until the TWG has received formal notification that the “for cause” review has been lifted and the resubmitted Charter and Program of Work have been accepted, the TWG may also be restricted from participating in SNIA sponsored activities or using SNIA resources.

14.1.3 Sub Group Review

At the discretion of the TC, a Sub Group of a TWG may be placed under “for cause” review without affecting the parent TWG. When a Sub Group is placed under a “for cause” review, the limitations described in section 14.1.2 shall apply only to the Sub Group.

14.2 Regular Review

On a regular basis, typically at least once every 18 months, the TC and TCMD shall review each TWG. These regular reviews are to:

SNIA Technical Work Group Policies & Procedures

- Verify that the TWG has been following the guidelines of its Charter.
- Verify that the TWG has been making progress on its Program of Work.
- Verify that everything in the TWG's Program of Work still has technical merit based upon the current status of the storage industry.
- Verify that the TWG is proceeding in accordance with all applicable policies and procedures.
- Look for ways that the TC can assist the TWG in its efforts.
- Update TC members as to the status and progress of the TWG.

SNIA Technical Work Group Policies & Procedures

15 Policies and Guidelines for software development

The following are provided to establish direction and guidance for all software development within the SNIA.

15.1 General Policies and Guidelines for all software development

The following guidelines apply to all software development within the SNIA.

1. Existing, widely-accepted software licenses should be used; the SNIA should avoid creating new software licenses.

15.2 Policies and Guidelines for all software development within TWGs

The following policies and guidelines apply to all software development within TWGs.

1. Adding software to an existing TWG: It should be understood that adding a SNIA Software Work Item to the Program of Work for an existing TWG may have implications for TWG membership, as this action requires that each TWG member either agree to be bound by the SNIA IP Policy V3.0 or later or discontinue membership in the TWG immediately upon TC approval of the Work Item.
2. Source Code Control: The source code repository and source code control system for software development shall be provided by the SNIA Technology Department. Specific requirements must be identified as part of the Work Item proposal, negotiated with the SNIA Technology Director, and then approved by the TC as part of the Work Item approval. Any exceptions must be approved by the TC.
3. Proposed new Work Items for software development shall address all necessary personnel resources other than those provided by Representatives, all support needed from the SNIA Technology Department, where and how Builds and Testing will be performed, etc.
4. Proposed new Work Items for software development shall address the criteria and processes for assessing readiness for release of the proposed work.
5. Before a SNIA Software Work Item is approved for release, a post-release maintenance plan shall be approved by the TC.
6. In general, commercially friendly software licenses, such as BSD, are preferred as inbound and outbound licenses.

15.3 Policies and Guidelines for SNIA Software development

The following policies and guidelines apply to the development of SNIA Software.

1. SNIA Software may not be developed except within TWGs.
2. The Charter of a TWG with a SNIA Software Work Item must specify the software license(s) that the TWG is authorized to use as inbound licenses for Contributed Work (as defined in the SNIA IP Policy). This provision in the TWG's Charter must be approved by both the TC and the SNIA Board.

SNIA Technical Work Group Policies & Procedures

3. The Charter of a TWG with a SNIA Software Work Item must specify the software license(s) permitted for use as outbound licenses.
4. SNIA Software should not implement a non-SNIA Architecture based interface in preference to one based on SNIA Architecture. (This is from the SNIA P&P.)
5. No SNIA entity is allowed to provide or imply that the SNIA will provide End User Support for SNIA Software. (This is from the SNIA P&P.) The TC interprets this to mean that the SNIA shall not provide to IT users any problem diagnosis, timely correction of problems, training or education related to SNIA developed software. The SNIA may accept problem reports from anyone to whom SNIA materials have been released. The SNIA may provide assistance to software developers using SNIA developed software.
6. The SNIA can entertain offers of software from SNIA members outside of the context of those MEMBERS working in a TWG chartered to create SNIA Software. This software may only be accepted by the SNIA as a Contribution (as defined by the SNIA IP Policy) accompanied by a SNIA Software Contribution agreement.

In the following, the “associated Software TWG” is a TWG that will develop the offered software.

Specifically, a SNIA Software Contribution agreement is needed when:

- a) A SNIA member (who could also be a member of the associated Software TWG) contributes software that was completely developed independently of the TWG. This software is considered Contributed Work, so the member must sign the agreement.
 - b) Two or more members of the associated Software TWG contribute co-authored software that was completely developed independently of the TWG. This is considered Contributed Work, so all contributing members should sign the agreement.
 - c) Two or more SNIA members contribute co-authored software, but at least one of the members is not a member of the associated Software TWG. This is considered Contributed Work, so all contributing members should sign the agreement.
7. MEMBERS developing and offering software within the context of a TWG chartered to create SNIA Software are offering Single Work and Joint Work (as defined by the SNIA IP Policy). In this case, the legal necessities and constraints have already been addressed through those MEMBERS joining the TWG and having met all of the pre-requisite obligations.

In the following, the “associated Software TWG” is a TWG that will develop the offered software.

Specifically, this case applies and NO SNIA Software Contribution Agreement is needed when:

SNIA Technical Work Group Policies & Procedures

- a) A member of the associated Software TWG contributes software that was completely or partially developed to meet the requirements of the TWG. This software is considered Single Work, so the member does not need to sign the agreement.
- b) A member of the associated Software TWG contributes software that was completely developed independently of the TWG, but modified for the TWG. This software is considered Single Work, so the member does not need to sign the agreement.
- c) A member of the associated Software TWG contributes software that was partially developed independently of the TWG and partially developed to match the requirements of the TWG. This software is considered Single Work so the member does not need to sign the agreement.
- d) Two or more members of the associated Software TWG contribute co-authored software that was completely or partially developed to meet the requirements of the TWG. This software is considered Joint Work, so the members do not need to sign the agreement.
- e) Two or more members of the associated Software TWG contribute co-authored software that was completely developed independently of the TWG, but modified for the TWG. This software is considered Joint Work, so the members do not need to sign the agreement.

15.4 Policies and Guidelines for Other Software development

Policies and procedures for Other Software Technical Work are not yet defined, and Other Software Work Items are not allowed at this time.

SNIA Technical Work Group Policies & Procedures

16 SNIA Resources for TWGs

The SNIA makes certain resources available to TWGs.

16.1 Email Reflectors

Each TWG is provided with an email reflector to conduct TWG business. Each TWG's email reflector is available only to its members.

All TWG email reflectors shall be hosted by the SNIA so that they can be properly archived and linked to the SNIA web site.

16.2 Web Site Area

Each TWG is provided with its own area in the Members Only section of the SNIA web site. All TWG Chairs are responsible for reviewing their TWG's web site area on a periodic basis for correctness, and for reporting all necessary updates to the TCMD.

16.3 SNIA Staff Support

Any TWG request for assistance from SNIA Staff should start with the TCMD, tcmd@snia.org.

16.4 Technical Council

The TC maintains an open door policy. TWG Chairs are encouraged to seek advice and guidance from the TC whenever they feel the need. This can include early reviews of Working Drafts and other Technical Work.

16.5 Feedback Portal

The TC has developed a web-based SNIA Feedback Portal for the purpose of receiving feedback on SNIA specifications and software. The portal includes the necessary intellectual property protections that make it possible for non-SNIA and non-TWG members to provide feedback while protecting the SNIA, the MEMBERS, and the SNIA standardization activities.

SNIA Technical Work Group Policies & Procedures

17 Index

Architecture Approval Process....	18, 22, 26, 27, 30, 32, 38
Chair	6, 7, 8, 9, 11, 12, 13, 19, 21, 22, 24, 26, 27, 39, 45, 48, 49, 54, 58, 59, 60, 61, 62, 63, 64, 69
Charter	1, 2, 4, 5, 6, 7, 15, 18, 43, 62, 64, 65, 66, 67
Errata	18, 26, 27, 37, 38, 39, 45, 53, 54
Errata Review Process	18, 27, 37, 38, 45
Final Document IP Review Process..	21, 22, 26
Informal Meeting	11, 58, 59
Internal Use Draft.....	16, 43
IP Policy	1, 2, 3, 4, 5, 6, 9, 10, 11, 12, 14, 15, 21, 42, 47, 53, 57, 62, 66, 67
IP Review..	18, 21, 22, 27, 45, 47, 48, 49, 50, 57
IP Review Process....	18, 21, 22, 45, 47, 48, 49, 50
MEMBER	1, 2, 6, 7, 9, 10, 13, 19, 21, 22, 24, 26, 27, 44, 45, 46, 48, 49, 50, 57, 67, 69
Minutes	8, 11, 12, 59, 60, 62
Official Vote..	2, 8, 11, 12, 13, 16, 19, 21, 24, 26, 39, 43, 45, 48, 49, 54, 59, 60, 61
Periodic IP Review Process.....	21, 48
Program of Work..	2, 3, 4, 5, 6, 7, 10, 13, 62, 64, 65, 66
Quorum	58, 59
Release Process.....	16, 18, 19, 26, 45
Representative	2, 6, 9, 58, 59, 61, 66
Secretary.....	8, 11, 13, 26, 50, 62
SNIA Architecture ...	2, 4, 5, 6, 7, 15, 18, 21, 22, 26, 27, 30, 42, 57, 67
SNIA Board	2, 6, 7, 21, 26, 27, 30, 39, 44, 48, 49, 50, 54, 57, 66
SNIA Software	2, 3, 4, 6, 7, 9, 15, 21, 42, 43, 44, 45, 47, 48, 49, 50, 53, 54, 55, 57, 66, 67
SNIA Software Approval Process	45, 49, 50, 54
SNIA Standardization Process	18, 26, 30, 32, 34, 37, 38
SNIA Technical Document 2,	15, 16, 18, 41, 48
SNIA Technical Position ..	18, 24, 27, 44, 45, 49, 50
SNIA Technical Proposal.....	17, 18
SNIA Work-in-Progress ...	2, 3, 6, 21, 26, 48, 57
Software Errata.....	50, 53, 54
Software Errata Review Process..	50, 53, 54
Software Module.....	2, 42
Software Package .	2, 42, 43, 44, 45, 49, 50, 53, 54
Software Release Process	43, 45, 49
Sub Groups	10, 13, 14, 60, 61, 62, 63
Symposia	10, 14
TC....	2, 3, 4, 5, 6, 7, 8, 9, 13, 14, 17, 18, 19, 21, 22, 24, 26, 27, 30, 32, 37, 38, 39, 44, 45, 46, 48, 49, 50, 53, 54, 57, 61, 63, 64, 65, 66, 67, 69
TCMD ..	3, 6, 7, 9, 10, 11, 13, 19, 21, 22, 24, 26, 30, 39, 41, 45, 46, 48, 49, 50, 54, 57, 61, 62, 63, 64, 69
Technical Approval Process	18, 24
Technical Work 1,	2, 3, 4, 10, 12, 15, 18, 19, 21, 24, 26, 27, 30, 39, 42, 43, 44, 45, 46, 48, 49, 50, 56, 57, 64, 69
Trial-Use Draft	16, 17, 24, 44
TWB.....	3, 10, 15, 16, 17, 18, 19, 21, 22, 24, 26, 27, 30, 32, 37, 38, 39, 41, 42, 43, 44, 45, 46, 48, 49, 50, 53, 54, 55, 57
TWG 2,	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 43, 46, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69
Work Item ..	2, 3, 4, 5, 6, 7, 9, 11, 12, 13, 14, 15, 16, 17, 18, 21, 42, 43, 44, 48, 57, 59, 60, 62, 63, 64, 66, 67
Working Draft.....	16, 21, 43, 44, 48, 69