Operating Guidelines for
InfiniBand^{SM} Trade Association Working Groups

Technical Working Group

February 2, 2021

Confidential

Table 1 Revision History

Revision	Release Date	
1.0	3/19/2001	Initial release by the Technical Working Group.
1.1	2/2/2021	Addition of Participants

17258110.2

TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION

The InfiniBand^{SM} Trade Association (IBTA) includes a Steering Committee and a number of standing Working Groups. The majority of these Working Groups relate to the development and maintenance of the specifications for InfiniBand^{TM} Architecture (IBA).

This document is intended to be a set of guidelines for processes and procedures to ensure efficient Working Group operation, to facilitate consistency among Working Group processes, and to document procedures generally accepted as the best known methods for Working Group operations in the IBTA. These guidelines are designed to give Working Group co-chairpersons nominal flexibility, and these situations are called out by noting chairperson discretion. There are, however, various process requirements that are dictated either by the IBTA Bylaws or decisions of the Steering Committee, and these will be called out specifically in this document.

CHAPTER 2: WORKING GROUP RESPONSIBILITIES AND RELATIONSHIPS

2.1 TECHNICAL WORKING GROUP

The Technical Working Group (TWG) has overall responsibility for the production of the specification documents and all related technical material, including errata and annexes. The TWG is also responsible for the overall technical completeness, quality and correctness of the specification, and oversight of the operations of the specification development Working Groups.

2.1.1 ASSEMBLE AND EDIT THE IBA SPECIFICATIONS, ANNEXES, AND ERRATA

The TWG performs an editor-in-chief function for all specification documents. This role includes, but is not limited to, basic document construction and assembly, development of outlines and templates, and editing of the Working Group submissions for spelling, grammar, clarity, and consistency. The editing functions are the responsibility of the TWG chairpersons, who may delegate these responsibilities at their discretion.

2.1.2 PROGRAM MANAGEMENT FOR SPECIFICATION DEVELOPMENT

The TWG is responsible for determining the overall deliverables and schedule for specification development, and determining the processes that will be used to meet the deliverables. The deliverables for the Working Groups are specification chapter assignments, annex assignments, and associated errata documents. The processes include document review, comment management, development cycles, and status reporting to the Steering Committee.

2.1.3 SPECIFICATION APPROVAL

The TWG is responsible for approval of the overall specification. The granularity of the approval process, at the Release, Volume, or lower level, is at the discretion of the TWG. The approval process requires a 2/3 majority for recommendation of the documents to the Steering Committee.

In the event a specification document is not approved by the TWG, the TWG must produce a formal set of recommendations for the Steering Committee and/or the affected Working Groups. The report must include reasons for non-approval from those companies voting against the documents, specific issues for feedback to the producing Working Groups, and recommendations to the Steering Committee regarding the disposition of the documents in question. The report is due for presentation by the TWG co-chairpersons at the Steering Committee meeting immediately following the TWG meeting at which the negative vote occurred.

2

If the specification documents are approved, a report is made by the TWG co-chairpersons to the Steering Committee stating that the TWG requests a Steering Committee approval vote and recommends similar approval.

2.1.4 INTER-WORKING GROUP ISSUES

The TWG is the forum for resolution of issues that transcend the responsibilities of any given specification development Working Group. These issues may be the result of escalation from another Working Group chairperson, or the introduction of the issue by any TWG member.

The inter-working group issue escalation process begins with E-mail notification to the TWG chairpersons. The chairpersons may request supporting documentation be available before scheduling the discussion in the TWG. The affected Working Group(s) co-chairpersons are always invited to the relevant discussions, and they can choose to invite expert members of their Working Groups to the TWG meeting for consultation. The decision-making process, however, remains with the voting members of the TWG, and the TWG chairpersons may limit discussion to those individuals as they see fit to ensure meeting efficiency.

2.2 OTHER SPECIFICATION DEVELOPMENT WORKING GROUPS

The specific charters of these Working Groups are determined by the Steering Committee, and are outside the scope of this document. The general, non-charter-related responsibilities of these Working Groups are described in this section.

2.2.1 SPECIFICATION DOCUMENT DEVELOPMENT

Each Working Group is assigned specification development work on the basis of a Volume or one or more chapters of a Volume, or one or more annexes. The granularity of the assignments will not be finer than the chapter or annex level. In those cases where chapters or annexes require submissions from multiple Working Groups, a "lead" Working Group shall be assigned by the TWG to take responsibility for the construction of the submission document.

2.2.1.1 ANNEX DEVELOPMENT

Annexes are incremental additions to a generally released specification volume that describe optional functionality. An annex shall not cause products previously compliant with the specifications to become non-compliant. Annexes may be designated normative or informative. Normative annexes will include compliance statements similar to those in the base specifications.

3

Development of an annex may be initiated and assigned by the Steering Committee or the TWG, or a given Working Group may independently decide to pursue development of an annex. Working Groups are assumed to be self-policing. Development priorities are determined by the Working Groups themselves, but it is also their responsibility to ensure alignment with the schedules and priorities set by the TWG.

In the event a member company disagrees with the initiative to develop an annex within a Working Group, that company may challenge the initiative by petitioning the Working Group. The challenging company must provide reasons why the annex initiative is inappropriate. If the chairpersons find the petition to be in order, the issue will be put to a binding vote in the Working Group. If the Working Group disagrees with the petition the issue will be escalated to the TWG for closure.

2.2.2   SPECIFICATION MAINTENANCE AND PROCESSING OF COMMENTS

Specification documents are subject to formal comment processes at predetermined times during development and for the life of the documents following general release. Each Working Group shall be responsible for using the comment processing tools provided by the IBTA, analyzing and deciding the disposition of comments, producing errata submissions as necessary, and responding to the comment submitters regarding the outcome of the comment investigation.

2.2.3   DEVELOPMENT AND PRESENTATION OF EDUCATIONAL MATERIAL FOR INDUSTRY EVENTS

The IBTA may periodically sponsor industry events to educate potential users of IBA documents or to promote the architecture. The Working Groups may be assigned responsibilities for developing presentation material, identifying personnel to present at events, and identifying personnel to staff consulting sessions (such "Meet the Architects" sessions and the like).

17258110.2

CHAPTER 3: WORKING GROUP PARTICIPATION

3.1   WORKING GROUP MEMBERSHIP

3.1.1   STEERING COMMITTEE AND SPONSOR MEMBER COMPANIES

Companies that are members of the Steering Committee, or are current Sponsor Members, can request and must be granted membership in all Working Groups designated as Open Working Groups by the Steering Committee.[1]

3.1.2   REGULAR MEMBER COMPANIES

Any regular member company of the IBTA in good standing can petition the chairpersons of an Open Working Group for inclusion as a voting member. Working Group membership approval is the responsibility of the chairpersons of the Working Group, see 4.1.8 Selection of Working Groups Member Companies on page 10 for process details.

3.2   WORKING GROUP PARTICIPATION

Working Group participation shall be limited to those companies designated members of that Working Group, or invited members of other Working Groups (at the discretion of the chairpersons), or invited companies or individuals who have been accepted to IBTA as Participants and who have duly signed the IBTA Participation Agreement ("Participant") (at the discretion of the chairpersons and if within the scope expressly allowed under the applicable Participation Agreement).

Working Group participation shall be measured by attendance at Working Group meetings. These meetings are in the form of conference calls or face-to-face meetings in a designated location. (See section 4.2 Voting Rights on page 11 for more information.)

3.2.1   WORKING GROUP REPRESENTATION

Membership and participation in Working Groups are assigned to IBTA member companies, not the individuals that may be employees or agents of those companies. Each company must designate a primary representative to each Working Group of which it is a member. The primary representative must have the authority to vote on behalf of the company, make and second motions, and participate in technical discussions relevant to the development of IBA.

---

[1] At its discretion the Steering Committee may designate Working Groups as "Open" or "Closed". Closed Working Groups may not add new members without direction from or permission of the Steering Committee.

Each company that is a member of a Working Group can also designate an alternate representative to the Working Group. The alternate representative must allowed to attend all Working Group meetings, and can act in the place of the primary representative in the event the primary transfers control to the alternate or the primary cannot attend the meeting.

At the discretion of the chairpersons, a company can assign additional employees or agents to participate in the Working Group. It should be noted, however, that participation above two representatives for each company is subject to the discretion of the co-chairpersons on a meeting by meeting basis, and is subject to various other limitations. See 4.1.6 Maintaining Meeting Order on page 10 for more information.

Participation in Working Groups may also be allowed for Participants (at the discretion of the chairpersons and if within the scope expressly allowed under the applicable Participation Agreement). Such Participants in Working Groups (as distinguished from Members in Working Groups) may participate in a Working Group's activities for informational purposes. Such Participants cannot participate in formal voting, but can participate in discussions, straw votes, and reflector discussions at the discretion of the chairpersons.

3.2.2 MEMBER AND PARTICIPANT CREDENTIALS

Working Group member and participant candidates must meet the following prerequisite qualifications[2]:

- Must have appropriate academic/work (e.g. engineering) experience and expertise

- Must be skilled in:

    - Writing proposals/specifications, including diagramming capabilities

    - Communication skills, both written and oral

- Must be able and willing to attend multi-hour weekly conference calls

- Must be able and willing to respond to E-mail and document writing assignments in a timely fashion

---

[2] Excerpted from "Criteria for Participation in Working Groups", http://www.infinibandta.org/app/members/area/wg/

- Must be able and willing to attend face-to-face meetings - travel required (typically quarterly)

- Must be able to collaborate effectively with others

- Commitment to meeting the development schedule of the Working Group

- Adherence to applicable policies and procedures adopted by the Steering Committee and the Working Group.

3.2.3 REMOVAL OF A COMPANY FROM A WORKING GROUP

A Working Group can exclude a company from participation, subject to IBTA constraints.

Good causes for removal of a regular member company include:

- The loss of voting rights continually for at least ten meetings and three months

- Missing more than fifty percent of the meetings in the preceding six months An exclusion motion can be made by any Working Group member company in good standing, and requires a simple majority for passage.

3.2.4 E-MAIL REFLECTORS & WORKING GROUP WEB SITE AREAS

Each Working Group will have a primary E-mail reflector that must be used for intra-Working Group messages. Private E-mail lists must not be used for general Working Group business. Exceptions to these rules include special situations where vendor or product specific information must be protected. Working Group documents, such as meeting minutes, proposals and specification drafts, must be uploaded to the Working Group's web site area.

Addition to a reflector list requires chairperson approval. The guideline is that only representatives to the Working Group may be added to the reflector, but others may be added at the chairpersons' discretion.

Web site document uploads are limited to Working Group representatives.

Employees or agents of member companies that are not Working Group representatives may access all Working Group documents and E-mail threads via the IBTA web site.

3.2.5 OBSERVERS

Chairpersons may allow *observers* in Working Group meetings. Observers are representatives from IBTA member companies, that may or may not be formally represented in a given Working Group, auditing a Working Group's activities for informational purposes. Observers cannot participate in formal voting, but can participate in discussions, straw votes, and reflector discussions at the discretion of the chairpersons.

CHAPTER 4: WORKING GROUP OPERATIONS

Working Group operations shall be governed by three general principles:

- One company, one vote

- This document

- Roberts Rules of Order[3]

IBTA Working Groups deviate somewhat from strict adherence to Roberts Rules. This document, which describes these deviations, takes precedence over Roberts Rules, and Roberts Rules is assumed for any situation not specifically called out in this document. In cases where procedures are called into question the chairpersons shall use Robert Rules strictly to resolve controversy. In the interest of consistency, especially with regard to voting, this document will specify certain required baselines for operational procedures.

Working Group discussions shall be limited to topics related to development of the specifications. Discussions relating to products must be in the hypothetical context only. Discussions relating to any company's actual products or product development plans are explicitly forbidden.

4.1 CHAIRPERSON RESPONSIBILITIES

By convention, since the formation of the IBTA, two co-chairpersons are designated for each Working Group. Co-chairpersons of a Working Group are expected to determine their own means for cooperation, and several schemes have proven successful in the IBTA. No specific guidance is provided by this document.

4.1.1 MANDATORY & NON-MANDATORY MEETINGS

All Working Group meetings are assumed to be mandatory unless specified as non-mandatory. Non-mandatory meetings do not have quorum requirements and must not include formal motions and votes, do not require minutes, but have the same notification and agenda requirements as mandatory meetings. Non-mandatory meetings are not subject to voting rights rules (See section 4.2 Voting Rights on page 11), meaning that they do not count towards or against attendance requirements. Chairpersons may schedule non-mandatory meetings at their discretion.

---

[3] See http://www.robertsrules.com

4.1.2 MEMBER STANDING

The standing of member companies in a Working Group is determined by their voting rights. (See section 4.2 Voting Rights on page 11.) Companies that have the right to vote in a given meeting are considered to be in *good standing*.

4.1.3 MEETING NOTICE AND AGENDAS

It is the responsibility of the chairpersons to give notice of, and set the agenda for, each meeting of the Working Group. Adequate notice of meetings should be given to allow sufficient time to review drafts and prepare views and objections, where applicable. Member companies in good standing can publish additional topics to be included in the agenda. Agendas must include a date, time, maximum duration, and a list of topics that will be discussed at the meeting. The agenda should be posted to the Working Group's reflector no later than 48 hours prior to the meeting. Topics that will require formal votes must be on the agenda and materials relevant to the voting decisions must be distributed 48 hours in advance of the meeting; exceptions must receive no objections from Working Group members present. Chairpersons are encouraged to postpone unscheduled topics requiring votes if any member companies of the Working Group in good standing are not present.

4.1.4 QUORUM REQUIREMENTS

The meeting must not begin until quorum requirements are met, which are two-thirds of the companies represented in the Working Group in good standing. The chairpersons shall wait a minimum of five minutes and a maximum of fifteen minutes from the documented starting time for the meeting in the agenda before ruling that the meeting has not met quorum requirements.

In the event quorum requirements are not met within fifteen minutes of the documented starting time of the meeting the chairpersons must announce that the formal meeting cannot take place. Should this situation occur the chairpersons can hold a non-mandatory meeting for the remainder of the scheduled time.

Each day of a face-to-face meeting counts as a separate meeting for quorum requirements.

4.1.5 MEETING MINUTES

The chairpersons must ensure formal minutes are captured for each mandatory meeting. The minutes must minimally include:

- Date and time period the meeting took place.

- A complete list of participating attendees. Primary representatives and acting alternates must be designated. The minutes must also note Working Group member companies not represented at the meeting.

- The meeting agenda.

- A section for each topic discussed. This section should include the high points of each discussion. The level of detail provided is at the chairpersons' discretion.

- All motions, seconds, amendments and votes shall be recorded.

- Required actions and their owners shall be recorded. It is recommended the action status list should be on-going and reviewed at each meeting.

- The minutes must be posted to the Work Group web site area in PDF format and specifically designated meeting minutes.

4.1.6 MAINTAINING MEETING ORDER

Chairpersons are expected to run orderly, efficient meetings. Executing this responsibility may include limiting conversation domination by individuals or companies to ensure all viewpoints are heard. Chairpersons themselves are expected not to use their management position to dominate discussions.

In the event discussions involve too many participants for orderly progress, the chairpersons may, at their discretion, limit participation in a discussion to the primary representatives designated for the discussion. If the chairpersons elect to do this the limitation shall be applied uniformly to all companies represented. No exceptions are allowed.

4.1.7 ESCALATION AND STATUS REPORTING

The chairpersons are responsible for attending appropriate TWG meetings and/or Steering Committee meetings as guests for the purpose of representing the Working Group and reporting development status or the escalation of issues. All chairpersons will be participants on the TWG reflector, which will be the communication medium for related requests and agendas. The chairpersons are responsible for reporting messages and decisions from the TWG and SC back to their Working Groups.

17258110.2

4.1.8   SELECTION OF WORKING GROUPS MEMBER COMPANIES

Steering Committee and Sponsor Member companies may request membership in any open specification development Working Group, but inclusion of representatives from regular IBTA member companies is at the discretion of the Working Group's co-chairpersons, though such decisions will be made on a non-discriminatory basis.

Working Group co-chairpersons may "advertise" for necessary skill sets or company type representation as they see fit. The only standard mechanisms for this advertisement is on the IBTA web site and mention of the openings during a sanctioned IBTA event. Any other means of advertising the openings must be approved by the Steering Committee.

The approval of new companies and representatives to a Working Group is normally the responsibility of the Working Group co-chairpersons. If both co-chairpersons agree that a company is approved to become a Working Group member, no other approval is necessary. Similarly, if both chairpersons agree that denial of membership in the Working Group is appropriate they may communicate the denial without further approval, but must they must provide a formal notification to the denied company, including the reasoning for their decision. The Steering Committee must be copied on all approvals and denials via the IBTA administrator (E-mail address: administration@infinibandta.org).

If the co-chairpersons disagree whether a company should be approved for Working Group membership the issue shall be escalated to the Steering Committee for resolution.

4.1.9   MANAGEMENT OF WORKING GROUP DELIVERABLES

Working Group chairpersons are responsible for ensuring that the their Working Groups fulfill the assignments from the Steering Committee and the TWG on a timely basis and with high quality. The process for allocating assignments is to call for volunteers on the Working Group's reflector. Responses from volunteers must also be sent to the reflector. If more responses are received than required within the allocated time period the chairpersons are responsible for the delegation of responsibilities. In the event there is an objection to the assignments the chairpersons shall call one or more votes of the Working Group to select the appropriate candidates[4].

Chairpersons may request regular status updates from those Working Group members that have accepted assignments. Failure

---

[4] Task assignments may be for an individual or a team. The chairpersons will determine the number of people required for a task.

to respond to status requests, recurring absence from meetings, or failure to meet schedule goals without reasonable explanation, are grounds for the chairpersons to reassign tasks.

4.2 VOTING RIGHTS

Every company that is a member in good standing of a Working Group shall be given one vote. Every company that is a member of the Working Group has a right to participate in every vote of the Working Group. If a company's representatives are not present for a vote their right to vote on that motion is lost. If multiple representatives from a company are present at a meeting, only the designated primary representative can cast the vote.

For a particular discussion a company's primary Working Group representative can "hand off" primary representation responsibilities to an alternate representative who will be speaking on behalf of the company. For the duration of the designated discussion the alternate representative shall be given the motion-making, discussion, and voting rights of the primary representative. The hand-off can occur as many times during a meeting as necessary to meet a company's requirements, and to as many different representatives as necessary, but the process must occur in an orderly fashion. If the chairpersons feel the situation has become confusing they can order the application of greater process formality.

To maintain a company's voting rights, an authorized representative from that company must be present at two of the previous four meetings. Once a company loses its right to vote in a Working Group it must be represented at three consecutive meetings of that Working Group to regain its voting rights. Voting rights are restored at the beginning of the third consecutive attended meeting. For the purpose of voting eligibility each day of a face-to-face meeting counts as a separate Working Group meeting.

Every scheduled mandatory meeting counts towards voting rights calculations, unless a meeting is specifically cancelled in advance by the chairpersons. Mandatory meetings that do not meet quorum requirements are counted.

Companies that are newly appointed to a Working Group can vote during the first meeting at which they are represented.

In the event a company's representative misses a face-to-face meeting due to circumstances beyond their direct control the chairpersons can use discretion to determine whether the absence is entered into the voting rights eligibility calculation.

4.3 MOTIONS & VOTES

Only Working Group members designated the primary representative for that meeting or discussion can make, second, or vote on motions.

The primary representative from any company in good standing in a Working Group can make motions. Chairpersons may rule motions out of order for various reasons, including being unrelated to agenda topics, of frivolous nature, running counter to voted Steering Committee decisions or the IBTA Bylaws, to name a few. If a motion is accepted by the chairpersons the motion can be seconded by the primary representative of another company. The lack of a second causes a motion to be removed from further consideration. Suggestions to alter a motion, which are referred to as *friendly amendments*, can be made before or after the motion is seconded. If a friendly amendment is made after the motion is seconded both the motion maker and the second must approve the amendment. Any proposed amendment not accepted by the motion maker (and the second, if appropriate) is dropped from further consideration.

Once a motion is seconded discussion can begin. The default rule, subject to chairperson discretion, is that anyone present at the meeting, other than observers, can participate in the discussion of a motion. The duration of the discussion is the decision of the chairpersons. At the chairpersons' discretion the discussion of a motion may be limited to the primary representatives only. If the chairpersons elect to do this the limitation must be applied uniformly to all member companies, without exception. Chairpersons are encouraged to allow all discussion to be heard, but in the interest of efficient meeting process the chairpersons can choose to end discussion and call the question (take the vote).

Chairpersons can call the votes in any order they choose, and chairpersons may vote last if they wish to do so. Companies cannot "pass" (to defer their vote) without the chairpersons' permission, and if one company is allowed to pass any company must be allowed to pass. Companies can vote for approval, against approval, or can abstain.

Once the votes have been cast and recorded the chairpersons will announce the outcome and rule whether the motion carries or fails. Tie votes result in the motion failing.

All motions, regardless of whether they are seconded or not, must be recorded precisely in the meeting minutes.

4.3.1 ABSTENTIONS

When a company's representative responds to a call for a vote with "abstain" this means the company does not wish to participate in the voting process for the motion on the table. The abstention shall be recorded in the voting record in the minutes. Abstentions reduce the population of companies eligible for a given voting process, thereby reducing the number of votes required for a majority. For example, if ten companies are eligible for to vote on a given motion and two companies abstain, passing the motion by simple majority will require five approval votes, and passing the motion by a two-thirds majority will require six votes. The majority requirements for passing a given motion will always be calculated as a fraction of the number of companies voting on a given motion, not as a fraction of the number of companies represented in the meeting or the Working Group.[5]

4.3.2 CHANGE OF VOTE

Once a vote has been cast by a company's representative on a motion and the vote has been accepted and recorded by the chairperson, and another company's vote has been called, the company cannot change its vote. This rule also applies to abstentions.

4.3.3 CONSENSUS AND MAJORITY REQUIREMENTS

For approval of specifications, to the extent reasonably possible, Working Groups should seek consensus, meaning general agreement but not necessarily unanimity. In seeking consensus, Working Groups should consider comments and objections using fair, impartial, open, and transparent processes, including for resolving conflicting views.

Various types of motions have different majority requirements for passage. The following rules apply to all specification development Working Groups:

- Approval to release specification candidate content - 2/3 majority

- Technical decisions - simple majority

- Overturning a previously carried motion - 2/3 majority

---

[5] It is assumed for this section that voting will take place only during meetings that have met quorum requirements. This means that the voting majorities that represent a calculated minority of the Working Group as a whole still represent a valid statement from the Working Group for passage or failure of a motion.

- Removing a seconded motion from the table - 2/3 majority

- Authorizing work towards an annex - simple majority

- Approving an annex for release - 2/3 majority

- Approving errata for release - 2/3 majority

- Approving presentation material - simple majority

All types of motions other than those listed above require a simple majority for passage.

4.3.4   E-MAIL VOTES

The Working Group reflectors may be used for the purposes of E-mail voting on motions made and seconded in a Working Group meeting. E-mail voting is an optional procedure employed at the discretion of the chairpersons. Motions subject to E-mail votes must be specially designated at the time the vote is called. Unless the chairpersons explicitly state for the minutes that a motion will be voted in Email, E-mail votes are not valid, and a company must be present at the meeting during formal voting to have their vote recorded.

In the event an E-mail vote is scheduled the chairpersons shall send an E-Mail to the appropriate reflector including the exact verbiage of the motion, the company that made the motion, the company that seconded the motion, and specific directions for voting. The voting directions must include the E-mail destination for the votes (such as the reflector, or a specific E-mail address), and a date and time when votes are due. The duration from the time the E-mail is sent until the votes are due shall be at least 24 hours, and 72 hours is recommended.

E-mail votes must be received from a company's primary Working Group representative, or a designated alternate. The chairpersons must be alerted that an alternate representative will be sending the company's vote.

It is permissible for a company to cast a vote during E-mail voting via a phone call to a chairperson from the company's primary representative.

Once an E-mail vote has been cast, either electronically or verbally, it cannot be changed.

When the voting period has expired a chairperson shall tally the votes and announce the outcome via a special E-mail on the

Working Group's reflector. The vote shall also be announced at the next meeting or conference call of the Working Group, and recorded in the minutes of that meeting, including the individual votes.

4.3.5 STRAW VOTES

Chairpersons may choose to allow straw votes, which are informal polls to determine the "feeling of the room". Motions for a straw vote do not require a second, but do require chairperson approval. Both the motions and the results will be documented in the meeting minutes.

4.4 SUBGROUPS

The specification topics assigned to Working Groups may be of such diversity that subgroups of Working Groups are justified. Subgroups are teams of representatives of companies that are regular members of the Working Group. The representatives can include either the primary and/or alternate representatives of from the companies, or additional representatives with the appropriate skill sets. There can be many purposes for forming subgroups, some of these may include technical topics that require specialized expertise, bounded architecture issues that require focused attention, or to attain parallelism in the handling of issues.

Subgroups cannot perform binding votes. All formal motions and voting that affect the specifications, annexes, or errata must take place in the context of the full Working Group of which the subgroup is a component. Subgroups can use informal voting for their decision making functions, including straw votes, but these votes are limited in scope to the material that effectively constitutes a proposal to the Working Group.

4.5 DOCUMENTATION REQUIREMENTS

The normal operations of Working Groups will generally include the consideration of proposals formulated by its membership. These proposals are expected to be in the form of Adobe FrameMaker™ documents, preferably using a format similar to the specifications themselves, distributed in PDF format, and uploaded to the IBTA web site area for the Working Group. Proposals may be formulated using tools other than FrameMaker when appropriate, but must be available to the Working Groups in PDF format.

4.6 SPECIFICATION DEVELOPMENT TOOLS

The IBTA has standardized on the following development tools, and Working Group members are expected to acquire copies of this software when they join:

- Adobe FrameMaker^{TM}

- Adobe Acrobat^{TM}

The most currently required release information for these tools can be accessed on the IBTA web site Working Group page.

Working Group members are also expected to have external E-mail privileges and access to the IBTA web site.

4.7 APPEALS

Working Groups have the following appeals process for members with voting rights in the Working Group.

Such members may appeal a ruling by the Chair of the Working Group under the procedures in Robert's Rules of Order.

With respect to the Working Group's approval (or non-approval) of specification documents, such members may also request permission from the Steering Committee to submit additional comments relating to the Working Group's decision on specification documents, which the Steering Committee may consider in its discretion in relation to any such specification documents.