



WiMAX Forum[®] Technical Activity Procedures (TAP)

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1. Scope, Purpose, and Status

This document (the WiMAX Forum® “Technical Activity Procedures” or “TAP”) provides operating procedures for all WiMAX Forum Technical Activities. It has been established by authority of the President and the WiMAX Forum Board of Directors, which retains absolute authority to amend or terminate it notwithstanding anything to the contrary in this document. This document supersedes the pre-existing *WiMAX Forum Working Group Process Guidelines* and previous revisions of the TAP. **Any conflict between the provisions of this document and the WiMAX Forum Bylaws shall be resolved in favor of the Bylaws.**

2. Definitions and High-Level Requirements

Advisory Working Group	Working Group chartered by WiMAX Forum to conduct supportive projects, including development of documentation as appropriate, but not authorized to draft normative specifications.
Board	The WiMAX Forum Board of Directors.
Bylaws	Bylaws of WiMAX Forum.
Draft WiMAX Forum® Specification	A draft of a WiMAX Forum Specification.
Meeting	A face-to-face meeting or telephone conference, or a combination of the two.
Member*	A member company of the WiMAX Forum, as defined in Section 4 of the Bylaws.
President	WiMAX Forum President.
Quorum	A Working Group quorum exists if at least 50% of WG Voting Members are present for the meeting or, in the case of electronic voting, cast a vote to approve, disapprove or abstain. A TSC quorum exists if at least 25% of TSC Voting Members are present for the meeting or, in the case of electronic voting, cast a vote to approve, disapprove or abstain. A TCC quorum exists if at least 50% of TCC Voting Members are present for the meeting or, in the case of electronic voting, cast a vote to approve, disapprove or abstain.
Regular Member	Defined in Section 4 of the Bylaws.
Task Groups (TG) and Subteams (ST)	Organizational subdivisions of WG.
Technical Coordination Committee (TCC)	Committee of Working Groups, including Advisory Working Groups, consisting of Working Group Officers (see Section 21 for more details). The TCC provides a venue for coordination, facilitation, and communication regarding operational and technical issues that require input from multiple Working Groups.

Technical Steering Committee (TSC)	Committee overseeing development of WiMAX Forum technical specifications and certification procedures to ensure an integrated, timely, and predictable technical program with broad membership support.
WG Active Member	A Member whose representatives have attended two of the previous three Working Group Meetings.
WG Voting Member	A Member that is a WG Active Member.
WiMAX Forum® Specification	A technical document (see WMF-A11-001 “WiMAX Forum Documentation Structure and Identification”) that has been approved by the WiMAX Forum following authorized procedures.
Work Item	A Working Group activity, conducted under a TSC-approved Work Item Initiation Form, with a specific Work Item Identification Number, to develop a specific Draft WiMAX Forum Specification. After publication of WMF v01 of a first specification of a specific release, a single maintenance Work Item may be initiated to cover any CRs against any approved specification of that release. The maintenance Work Item is not required for release independent documents, where the release field is not used.
Working Group (WG)	Group created by authorization of the President or Board to undertake authorized tasks within its defined charter and scope.
Working Group Meeting	A formally scheduled and convened meeting during which Working Group business is planned and attendance counts toward maintaining WG Active Member status.
Working Group Participant*	Individual participant in a Working Group.
Project Manager (PM)	The WiMAX Forum staff project manager responsible to manage the project execution plan and schedule for WiMAX Forum Releases and project deliverables.
Project Administrator	WiMAX Forum staff member assigned to support the Project Manager and Working Group in administrative tasks.
Work Item Initiation Form (WIIF) (Appendix B)	A request form used to request TSC authorization of a Work Item.
Release	A WiMAX Forum Release comprises a specific set of technically-integrated WiMAX Forum specifications. For more details, see WMF-A11-002 (“WiMAX Forum Release Structure and Process”).
TSC Chair	Chair of the Technical Steering Committee (TSC).

*Note: Use of the term “Member” on the WiMAX Forum web site to indicate individual participants is a strictly informal use of the term and does not reflect the formal definition of the term as used herein.

3. Technical Steering Committee (TSC)

3.1 Charter

The Technical Steering Committee (TSC) is chartered to oversee the Working Groups and the development of WiMAX Forum® technical specifications and certification procedures to ensure an integrated, timely, and predictable technical program with broad membership support. It shall:

- Ensure that technical planning, specification, and certification are broad-based, representing the WiMAX Forum membership.
- Define overall programs and release plans ensuring consistency and alignment in all Working Group activities.
- Promote broad acceptance of roadmaps and decisions by the WiMAX Forum Membership to drive the success of the ecosystem.

3.2 Responsibilities

The TSC is generally responsible to:

- Determine the overall time-frame for and overall content of WiMAX releases, plan and approve release roadmaps, and track overall work progress; and
- Receive, review, and act upon reports from Working Groups on technical activities, including the development of WiMAX Forum technical specifications and certification processes.

The TSC is specifically responsible for:

- Approval of Work Items proposed by WGs;
- Approval of technical specifications, pending confirmation by the President and the Board and satisfaction of any applicable legal requirements; as “TSC Approved”;
- Approval of WG Chair elections, subject to Presidential approval and Board confirmation;
- Handling of appeals from WiMAX Forum Members on procedural matters related to technical activities;
 - 1) Maintaining and updating WiMAX Forum Technical Activity Procedures and other governance documents related to technical activities, subject to Presidential approval and Board confirmation;
- Recommending establishment of or changes to the WiMAX Forum’s formal relationships with other related organizations. The TSC is authorized to handle such inquiries within the bounds of WiMAX Forum policy, or will seek new policy from the President, subject to further confirmation by the Board, if warranted, if it regards a change in policy to be necessary. Working Groups are encouraged to make recommendations to the TSC regarding such relationships;
- Reviewing Working Group Scope and Charter statements to reduce overlap among Working Group scopes and ensure that all important technical issues are addressed, proposing Scope and Charter revisions or new WGs to the President as it considers to be necessary; and
- Initiating and coordinating cross-WG activities, as necessary, to address technical problems requiring an integrated systems approach.
- Approving technical content incorporated in all white papers and other high-level documentation other than technical specifications. None of these shall be released unless approved by the TSC. However, in urgent cases, the TSC Chair may authorize release of such a document, provided that a formal request, including a justification of the urgency and a copy of the document, is made to the TSC Chair and copied to the TSC reflector. In such cases, the TSC

Chair is authorized to grant approval, by announcement to the TSC, pending a 48-hour review period; approval is final if the 48-hour review period passes without technical objection to the approval from a TSC member.

3.3 Guidance

In carrying out its activities, the TSC should:

- Develop high level goals, rather than detailed requirements or solutions, for future releases based on member input and market needs (considering, for example, backward compatibility, market to be addressed, ITU objectives, etc.) and aligned with WiMAX Forum Vision and Mission;
- Develop release roadmaps, including target dates, based on high level goals after review and comment by all working groups for TSC resolution;
- Approve Work Items (specified by a complete Work Item Initiation Form) based on the roadmaps and overall coordination, identifying mismatches to be resolved (preferably in advance) by relevant WGs and in coordination with relevant subcommittees;
- Address approval (pending Presidential approval and Board confirmation) of proposed release specifications based on (above). In case of non-approval, the proposed release specification goes back to the corresponding WG with explanation, but not based on objections to technical details unrelated to high-level goals;
- Monitor WG status reports and progress indicators as reported by the PM on key milestones and key performance indicators.

The TSC shall not:

- Enforce specific remedies to the WGs but may suggest options;
- Initiate Work Items;
- Draft technical specifications that fall under the responsibility of the WGs based on their charters.

3.4 Chair

An interim or permanent TSC Chair shall be subject to appointment by the President and subject to Board confirmation. A Director on the Board shall not serve concurrently as the TSC Chair. The TSC Chair reports to the President and is responsible to:

- Lead the TSC activity and make procedural decisions within the limitations of these WiMAX Forum Technical Activity Procedures and all superior documents;
- Call, organize, set the agenda for, and chair Technical Plenaries and other TSC meetings;
- Ensure that minutes are available in a timely fashion;
- Oversee the operation of TSC electronic processes;
- Initiate subcommittee and ad hoc committee activity as necessary, and appoint leaders of such committees;
- Maintain an accessible roster of TSC Members;
- Maintain authoritative and accessible rosters of all Working Groups and Officers;
- Communicate with TSC Members and encourage their active participation;
- Ensure that all parties have a reasonable opportunity to express their views on TSC matters;
- Seek to resolve issues by consensus;

- Conduct TSC activities in an efficient manner; and
- Represent the TSC before the Board.

3.5 Voting Membership

The TSC Chair shall be responsible to maintain, for continuous availability to the WiMAX Forum Membership, a roster of TSC Voting Members. Each Member shall have the opportunity to designate, through the TSC web site, an individual as TSC Voting Member and an alternate for the case that the designated TSC Voting Member is not available. Changes to either designation become effective one week after notification. However, at the TSC Chair's discretion, the Member can be represented by a replacement Member representative in extenuating circumstances. Members are encouraged to name individuals with a broad view of their company and the WiMAX ecosystem and with the authorization to represent the Member during live discussions. Members should delegate an individual who is expected to serve for at least one year. In addition to the TSC Voting Member, other individuals associated with the Member are entitled to attend TSC meetings and TSC electronic discussions as Observers and may participate in the discussion at the discretion of the Chair.

3.6 Suspension of Voting Membership

If the President, with advice from WiMAX Forum legal counsel or input from TSC Chair, determines that the Member is not complying with the applicable requirements for WiMAX Forum membership, as stated in Section 4 of the Bylaws (and, with respect to Board-level Members only, the Board-approved Board level membership criteria), the President will notify the Member of the violation and the Member's rights to vote as TSC Voting Member will be immediately suspended until the President determines, in consultation with WiMAX Forum legal counsel or TSC Chair as applicable, that the violation has been cleared.

3.7 Nonvoting Membership

Each Working Group holds a Nonvoting Membership in the TSC. Nonvoting Members have the full rights of membership in the TSC, with the exception of the right to vote. The WG is represented by a single WG Officer, or other person designated by the WG Chair, with notification provided by email to the TSC Chair from the WG Officer. The WG delegate shall represent the WG and shall not represent the specific perspective of the delegate's company or employer.

3.8 Observers

All WiMAX Forum Members are welcome as non-participating observers in TSC meetings and TSC electronic discussions.

3.9 TSC Meetings

The TSC shall meet in person or by teleconference, as convened by the TSC Chair, with a minimum one week advance notification by email to the TSC Members. The TSC may waive the notification requirement by vote as a first order of business for any meeting convened with insufficient notice.

The TSC shall meet during each WiMAX Forum Member Conference. This meeting shall be known as a Technical Plenary.

TSC meetings are open to full participation by TSC Voting Members. All WGs shall ensure that their assigned delegate attends each in-person meeting and is fully prepared to represent the position of the WG. The draft agenda for the Technical Plenary is based on contributions from the Working Groups while meeting at the Member Conference and as such the agenda may be published the day before the meeting to accommodate WG contributions. The draft agenda for TSC teleconferences shall be uploaded two working days in advance of the meeting.

3.10 TSC Voting during Meetings

TSC Voting Members and TSC Nonvoting Members have the right to make and second motions to the TSC. In deciding such motions, each TSC Voting Member present shall have one vote. Votes shall be conducted by show of hands, or via recorded roll call at the discretion of the Chair. During teleconferences, votes shall be taken and recorded via roll call or electronic voting. Motions must receive greater than 60% approval based on the sum of the Approved and Disapproved votes for acceptance. The Chair shall apply Robert's Rules of Order [3] regarding voting issues.

3.11 Electronic Votes of the TSC

Electronic voting uses the online ballot tool provided on the TSC web site. Electronic voting can be used to make decisions outside of meetings. Electronic voting can also be used during a TSC meeting. Using electronic voting:

- a) The vote is valid only if the 25% Quorum requirement is met, based on the total number of valid votes cast (Approve, Disapprove, or Abstain).
- b) A valid vote is approved if the number of votes to Approve is greater than 60% of the votes to Approve plus Disapprove.
- c) The result of the vote shall be archived on the web site.
- d) If the vote is held during a meeting, only TSC Members present in the meeting are eligible to vote.
- e) If the vote is outside a meeting, the vote shall be announced to the TSC email reflector and to all TSC Members. The duration of the vote shall be no less than one week.

3.12 TSC Subcommittees

The TSC Chair is authorized to designate TSC subcommittees, subject to TSC approval, as necessary to address TSC functions, such as leading core TSC activities, or leading discussions of topics that could lead to new focus areas. The TSC Chair shall issue an open call for volunteers and then designate a Chair for each TSC subcommittee, subject to TSC approval. Each TSC subcommittee shall have an associated group web site, to which every WiMAX Forum Member is eligible to have access. The members of the TSC subcommittee are those TSC Members who choose to join using the electronic web site tools.

TSC subcommittees may meet in teleconferences and face-to-face. All teleconference meetings shall be announced via the subcommittee web site and e-mail reflector at least seven (7) days before the start of the meeting.

3.13 TSC and TCC

The TCC may provide recommendations regarding documents under consideration.

4. Working Groups

Working Groups are chartered by the WiMAX Forum® to bring together content experts from Members to contribute and harmonize documents and specifications and perform other tasks that the WiMAX Forum has determined to be necessary or useful for the WiMAX Forum and its mission.

4.1 Working Group Types

Working Groups are generally authorized to develop normative specifications. However, certain Working Groups, known as “Advisory Working Groups,” are not authorized to develop normative specifications. A Working Group is an “Advisory Working Group” if it is specified as such herein or, with respect to new Working Groups, is so designated by the President, or by the TSC Chair with the President’s approval, and confirmed by the Board. The Regulatory Working Group and Marketing Working Group are each Advisory Working Groups.

The remainder of this Section applies to Working Groups excluding Advisory Working Groups.

5. Working Group Initiation and Termination

The President, or the TSC Chair acting in collaboration with the President, is responsible for initiating formation and termination of Working Groups with the advice of the TSC and subject to Board confirmation. The TSC is authorized to recommend to the President the initiation of a new Working Group with a specified Scope and Charter, the revision of Working Group Scope and Charter statements, and the termination of Working Groups. An action to form, terminate, or modify a Working Group, or its Scope and Charter must be approved by the Board in order to become effective. When initiating a new WG, the President, with the advice of the TSC, shall specify the available offices. The President shall appoint a convener for the new WG to call the first meeting and facilitate the recommendations for the WG Chair and scope for TSC approval.

In the case of a decision to initiate a new WG:

- The President, shall appoint an Interim Chair (and, if appropriate, additional WG Officers) to facilitate the organization of any new Working Group, considering the recommendation of the TSC.
- A Call for Participation shall be issued to the WiMAX Forum Membership, to include a statement of the Working Group objectives and information for participants (Working Group web site, instructions on registering for the email reflector, etc.).
- An initial Working Group organizational meeting shall be announced to the WiMAX Forum Members at least 30 days in advance, specifying the dates, times, and location. If possible this should occur at a face-to-face meeting.
- During the Working Group organizational meeting, the Working Group will elect individuals to fill the Working Group Offices.
- Within one week of an organizational meeting, the Interim Chair shall submit the election results to the TSC for review and approval. Upon confirmation by the TSC, the TSC will promptly forward the results to the President for review and submission to the Board for confirmation.
- The Working Group Officers assume their role only upon approval by the TSC and President with confirmation by the Board. If the results of an election are not confirmed, the TSC Chair shall invalidate the election and initiate a new one with at least four weeks’ notice.

- Interim WG Officers remain in position pending a confirmation of the election results.
- During the first three WG meetings of a newly-formed WG, Quorum shall be considered to be in place regardless of attendance, and all Members in attendance shall have the right to vote.

6. Working Group Offices and Selection of Working Group Officers

The officers of Advisory Working Groups take office upon appointment by the President subject to confirmation by the Board. Any individual, including an employee or consultant of the WiMAX Forum® or of a WiMAX Forum member, may serve as an officer of an Advisory Working Group.

Technical Working Group Officers shall be selected by election by the WG Voting Membership of the respective Working Group, subject to confirmation by the TSC and Board. In the event that there is only a single candidate for any Technical Working Group Office, the President, or the TSC Chair acting in collaboration with the President, may appoint a candidate to fill a vacancy for the remaining term. The officers of Technical Working Groups take office upon appointment by the President subject to confirmation by the Board.

The remainder of this section applies to Working Groups excluding Advisory Working Groups.

6.1 Working Group Offices and Eligibility

- a) The positions of Chair, Vice Chair, and Secretary are all Working Group Offices.
- b) A Working Group Office is held by an individual participant and not by a member company. A WG Officer who continues to meet the qualifications as set forth in this section shall retain his/her office in a change of affiliation so long as a letter of support is provided from the new affiliate.
- c) Only an employee or consultant affiliated with a Member company may serve as a Working Group Chair or Vice Chair. However, the TSC Chair, with the President, or the TSC Chair with the President's approval, may designate any individual to any Working Group Officer's position in special circumstances, subject to confirmation by the Board.
- d) No individual may serve as a Director on the Board or as TSC Chair and concurrently serve as a Working Group Officer.

6.2 Term of Office

Elections or reappointments shall take place in conjunction with the first WiMAX Forum Member Conference or Working Group Face to Face meeting of each even-numbered year. Officers shall take office immediately following Board confirmation. However, when TSC and Board confirmation take place during a WiMAX Forum Member Conference, the term of office shall commence at the conclusion of that Member Conference.

6.3 Specific Available Working Group Offices

The offices available in each WG are specified by the TSC. Unless altered, the following Working Group Offices are specified and shall be filled subject to election:

- Service Provider Working Group
 - o Chair
 - o First Vice Chair
 - o Second Vice Chair

- o Secretary
- Smart Energy Working Group
 - o Chair
 - o First Vice Chair
 - o Second Vice Chair
 - o Secretary
- Aviation Working Group
 - o Chair
 - o First Vice Chair
 - o Second Vice Chair
 - o Secretary
- Technical Working Group
 - o Chair
 - o First Vice Chair
 - o Second Vice Chair
 - o Secretary

6.4 Officer Election Procedures

No later than six weeks prior to the scheduled end of the WiMAX Forum Member Conference during which elections are scheduled, the TSC Chair shall ensure that each Working Group reflector is notified with a Call for Candidates specifying the positions and the election procedures. The Call for Candidates shall clearly specify the relevant deadlines in the form of specific stated dates.

Eligibility for WG Offices is described above, under “Working Group Offices and Eligibility.” An eligible individual may become a candidate by nominating himself/herself or by having his/her name placed into nomination by a WG Voting Member of the respective WG. The deadline for providing notice of candidacy is 14 days prior to the opening of the WiMAX Forum Member Conference during which the election is scheduled. Late submissions shall be excluded from the ballot. Early indication of intent, prior to the deadline, is encouraged.

Candidates may, but are not required to, submit information and materials regarding themselves and their candidacy, such as an informative statement of candidacy and a qualification statement. Such information shall be submitted to the TSC Chair and the respective Working Group reflector. Candidates should distribute such materials no later than 7 days prior to the opening of the WiMAX Forum Member Conference during which the election is scheduled.

Candidacy is dependent upon a statement of validation, by a Member, that it endorses the candidate and that it continues meets the criteria of the WIMAX Forum Membership Agreement. Such a statement is due to the TSC Chair and the respective Working Group reflector 7 days prior to the opening of the WiMAX Forum Member Conference during which the election is scheduled. The TSC Chair shall ensure that the respective Working Group reflector is promptly notified of the final roster of candidates.

For all matters requiring written notice to the Working Group reflector, the subject of the notice shall be clearly, concisely, and prominently displayed in the message subject line.

In the event that there is only a single candidate for any Technical Working Group Office, the President, or the TSC Chair acting in collaboration with the President, may appoint a candidate

to fill a vacancy and forego the election process. In any case where there are multiple candidate nominations for an office, elections shall be conducted using the following rules:

- a) Election administrators shall be designated by the TSC Chair. Election administrators shall normally be WiMAX Forum staff. Employees and consultants of WiMAX Forum Members are not eligible to serve as Election administrators.
- b) An election to fill each Working Group Office shall be conducted in conjunction with the first WiMAX Forum Member Conference of each even-numbered year.
- c) The WiMAX Forum WG web system shall be used to conduct each election using secret voting. Each electronic election shall remain open for approximately one week. All elections shall close simultaneously at a date and time to be established, nominally on the Wednesday of the WiMAX Forum Member Conference. No results shall be available until the election is closed. At that point, the web site shall display summary results but shall not display the specific ballots of individual voters.
- d) Each election shall be conducted using the “Approval Voting” method (see <http://approvalvoting.org>), which allows the WG Voting Member to vote for any number of the candidates for each Office.
- e) The eligible voters are the WG Voting Members in the relevant WG on the date the electronic election is opened. The election administrator is responsible to determine eligibility, under the review of the TSC Chair.
- f) Each eligible WG Voting Member may cast one ballot for each WG Office for which it is eligible to vote. Once the ballot is cast, changes shall not be permitted.
- g) A separate election shall be conducted for each WG Chair, Vice Chair, and Secretary. When WG Offices exist for both First Vice Chair and Second Vice Chair, the leading finisher in the Vice Chair election shall be elected to the First Vice Chair position, while the second leading finisher shall be elected to the Second Vice Chair position; in the case of a two-way tie for first place, both leading vote-getters shall be elected as Vice Chair and the Chair shall designate each to a Vice Chair office. Except in the case of multiple Vice Chair Offices, the candidate receiving the most votes is elected. In the case of a tie, the tied candidates may agree to resolution of the tie among themselves; otherwise, a runoff election, administered by the TSC Chair, shall be held including only the vote-getters sharing the lead. If, after two or more electoral rounds, the TSC Chair declares a deadlock, the President shall fill the office from among the leading vote-getters in the final round.
- h) If, following the election and confirmation process, the position of WG Chair is unfilled, the TSC Chair shall designate an Interim Chair and new elections shall be scheduled.
- i) If, following the election and confirmation process, the position of WG First Vice Chair or WG Vice Chair is unfilled, the new WG Chair shall designate an Interim Vice Chair and new elections shall be scheduled. If the WG position is vacant as well, the TSC Chair may designate an Interim Vice Chair.
- j) If, following the election and confirmation process, the position of WG Second Vice Chair or WG Secretary is unfilled, the position may remain vacant. At the request of the WG Chair, new elections shall be scheduled and administered by the TSC Chair under the general principles of the Officer Election Procedures. If the Secretary office is vacant, the WG Chair shall be responsible to ensure that all duties of the Secretary are fulfilled. The WG may designate an Acting Secretary to fulfill Secretarial duties, but the individual in this role is not a WG Officer.
- k) Procedures for Multiple Candidacies

- (1) No individual may simultaneously hold, or be a candidate for, officer positions in two or more Working Groups.
- (2) No individual may simultaneously hold, or be a candidate for, both the Chair Office and any other Office in a single Working Group. An individual may simultaneously hold, or be a candidate for, both Vice Chair and Secretary Offices in a single Working Group.

6.5 Vacancies in Working Group Offices

- 1) A vacancy in a WG Officer position occurs when:
 - a. The Officer, or, subject to Paragraph (b) below, a duly recognized representative of the Member with which the Officer is affiliated, submits a notice of resignation to the TSC Chair. Such notice shall be immediately brought to the attention of the President and the TSC.
 - b. The Officer loses eligibility for the position, for example but not by way of limitation, by the termination of employment with a Member unless the Officer retains eligibility by employment with a different Member within a reasonable period after termination by the Member. For purposes of the foregoing sentence, a “reasonable period” is thirty (30) days. An Officer’s loss of eligibility is subject to Section 7.1, Paragraphs (b) and (c) above. When a WG Officer’s affiliation with a Member is terminated, a duly recognized representative of that Member shall submit a notice to the President or TSC Chair. The President or TSC Chair may extend an Officer’s eligibility for the position for a period of up to ninety (90) days.
 - c. The Officer loses eligibility for the position, when the Officer remains non-eligible voter of the working group for a “reasonable period”. For purposes of the foregoing sentence, a “reasonable period” is thirty (30) days. An Officer’s loss of eligibility is subject to Section 7.1, Paragraphs (b) and (c) above.
 - d. The President, the TSC Chair, or the Board declares a vacancy in a position, based on the Officer’s failure to participate in the working group for a period of thirty days or failure to meet the responsibilities as outlined in section 8.
 - e. The President, the TSC Chair, or the Board declares a vacancy in a position, based on notice provided by an Officer to the TSC email reflector.
- 2) If a vacancy occurs for any WG Officer position other than a Chair, the WG Chair shall, within one week, provide the Members with details of the vacancy and call for candidates. A single candidate may be recommended by the Working Group for appointment to the vacant office. Such a recommendation shall be made by the Working Group Chair and is subject to the requirements outlined in section 6. In a multiple candidate situation, elections shall be administered by the WG Chair shall following the general principles of the Officer Election Procedures. Within one week of the completion of the election, the Working Group Chair shall submit the election results to the TSC and to the President for approval. Upon approval by the TSC and the President, the President shall forward the election results to the Board for confirmation. Confirmed officers shall fill the remainder of the term. The WG Chair is authorized to appoint Interim Officers to vacant officer slots.

If a vacancy occurs for a WG Chair position, the next officer in the order of succession (First Vice Chair, Second Vice Chair, Secretary) shall act as Interim Chair, subject to discretion of the President, or the TSC Chair with the President’s approval, with confirmation by the Board, to appoint an Interim Chair, pending finalization of a replacement. In this case, the TSC Chair shall either appoint a single candidate or administer an election for multiple

candidates to fill the remainder of the term following the general principles of the Officer Election Procedures, but using an accelerated schedule to ensure a timely replacement.

7. Working Group Officer Position Descriptions

All Working Group Officers are generally expected to attend all formal meetings of the Working Group, whether face-to-face or in teleconference. This includes Working Group meetings at the WiMAX Forum® Member Conferences as well as additional Working Group face-to-face meetings. Officers unable to attend a given meeting are expected to make their absence known well in advance and to arrange suitable coverage of their responsibilities. Teleconference meetings of the Working Group are scheduled on a regular basis, with additional supplementary teleconferences as necessary. WG Officers are not necessarily required to participate in meetings of Working Group subgroups but are encouraged to be engaged so as to ensure success.

7.1 WG Chair

The WG Chair has primary responsibility to lead the WG to the completion of deliverables as assigned by the Technical Steering Committee and to advocate on behalf of the Working Group. The Chair is responsible for ensuring that the activities of the Working Group stay within the boundaries of the WG Charter and within the scope of the assigned Work Items. The Chair's responsibilities include the following:

WiMAX Forum Operations & Reporting:

- Attending WiMAX Forum Board meetings, upon request, during a WiMAX Forum Member Conference
- Participation as a Nonvoting Member of the Technical Steering Committee (TSC) representing the Working Group, unless the WG designates an alternate individual
- Participation in the Technical Coordination Committee (TCC)
- Coordination with WiMAX Forum staff as necessary to ensure timely WiMAX Forum deliverables

WG meetings and process:

- Leading all Working Group Plenary Meetings by setting meeting agendas and scheduling teleconferences to attain objectives
- Representing the WG regarding WiMAX Forum decisions on scheduling of face-to-face meetings
- Ensuring that the membership is aware of opportunities to comment, discuss, and decide
- Driving issues to closure while maintaining a fair and impartial process
- Formally accepting and conducting motions and certifying the results
- Overseeing attendance and membership roster management
- Overseeing web server and e-mail reflector issues
- Managing external liaison contacts as specified by TSC Chair

7.2 WG Vice Chair

The WG Vice Chair has secondary responsibility to lead the WG to the completion of deliverables as assigned by the Technical Steering Committee and the TSC Chair.

In some WGs, two Vice Chair offices are specified. In this case, the responsibilities in general are identical for the two offices, with the exception of succession:

- The First Vice Chair serves as Acting Chair when the Chair is unavailable
- The Second Vice Chair serves as Acting Chair when the Chair and First Vice Chair are unavailable

The Vice Chair's responsibilities include supporting and backing up the Chair and the responsibilities outlined in section 8.1 as designated by the Chair or the TSC Chair.

The Vice Chair is invited to participate in the Technical Coordination Committee (TCC).

7.3 WG Secretary

The role of the Secretary varies with the Working Group and the assignments of the Working Group Chair. Typical roles include:

- Ensuring that meeting minutes are published in a timely fashion
- Tracking action items and committed milestones
- Managing the web server and e-mail reflector
- Managing the member roster, the WG Active Member roster, WG Voting Member roster, attendance records, and roll call votes
- Tracking, and reporting on, the status and progress of WG specifications under development as well as other deliverables
- Oversight on meeting logistics and arrangements

In some cases, a WiMAX Forum Project Administrator may be available to assist with secretarial duties.

8. Typical Working Group Organizational Structure

As Working Groups expand in size and scope, there may be a need to create focused teams of smaller organizational units. Figure 1 shows Working Group subdivision into Task Groups (TG) and Subteams (ST).

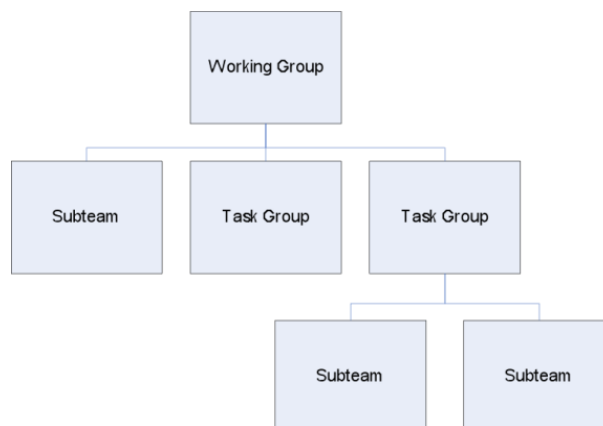


Figure 1: Typical Working Group Subdivisions

Table 1 compares the WG, TG, and ST in a number of characteristics.

Area	Working Group	Task Group	Subteam
Formation	Approved by the President and confirmed by the Board, generally based on the recommendation of the TSC, TSC Chair, or President to address a general area.	Formed by the WG or upon the recommendation of the TSC, to create one or more specific deliverables. A motion brought before the WG to form a TG must include a proposed scope/charter statement and identify the benefit to the WG and consistent with the vision, mission objectives of the WiMAX Forum.	Formed by the WG or TG to address a specific topic within its charter. A motion brought before the WG/TG to form a subteam must include a proposed scope/charter statement and identify a volunteer to lead the group.
Charter	Defined Scope/Charter approved by the President and Board. Must be consistent with the vision, mission, and objectives of the WiMAX Forum.	Limited Scope/Charter within the WG scope and approved by the WG.	Very informal Scope/Charter within the WG/TG scope and approved by the WG/TG.
Leadership	Specified in TAP.	Chair and other officers may be appointed by the Working Group Chair or by an election at the discretion of the Working Group Chair.	Led by volunteer(s) with time to commit to solving the problem. If the subteam lead decides to step down for whatever reason and an alternate is not identified, the subteam will be dissolved and the work brought back to the Working Group for further progress.
Process	Formal procedure specified in TAP.	Informal procedure specified in this document.	The subteam structure is more informal than the WG or TG. With consideration to the geographic makeup of the subteam, each subteam lead determines how to best collect and harmonize input for the Working Group. This includes meeting announcement lead-times, meeting times, and tracking comments within the subteam document.
Attendance Tracking	Formal attendance tracking for Member companies using the Working Group web site.	Formal attendance tracking for Member companies maintained and posted to WG documents web site.	Informal attendance tracking documented as part of the meeting minutes.
Quorum Requirements	≥50% WG Voting Members	≥50% TG Voting Members	Not applicable
Voting Members	WG Voting Members defined herein.	Same member attendance requirements to maintain voting privileges as defined for the WG Voting Members, but using the TG Member list.	Not applicable. Any member that contributes to the work product provides input in making decisions.

Area	Working Group	Task Group	Subteam
Decision-Making Process	Formal procedure specified in this document.	Straw polls, call for consensus and Roll-Call voting are used for decision making by the TG's. TG's may use electronic means for voting by email.	Straw polls are the preferred method to harmonize contributions. There is no formal voting, but any means may be used to collect the participants' views.
Meeting attendance counts towards maintaining WG voting privileges	Yes	No	No
Document Approvals	Formal ballot process within WG. Upon completion of successful Ballot Review, WG draft attains status of WG Approved Draft. Upon completion of successful ballot, draft Specification shall be submitted to assigned staff in preparation for TSC approval.	TG output documents are presented to the WG for Ballot review and approval. Ballot review comments are resolved by the TG and submitted back to the WG.	Contributions from a subteam are similar to contributions made by individuals. The WG/TG process determines what is accepted in the final document.
End of Life	WG's are terminated at the discretion of the President with confirmation of the WiMAX Forum Board based on the recommendation of the TSC.	TG's are dissolved by the WG when their deliverable is complete or if they become ineffective. A TG may be dissolved at any time by a motion before the Working Group indicating the TG is not making progress or is going beyond its scope/charter.	A ST is automatically dissolved when its specific task is considered complete by the WG/TG. A ST may be dissolved at any time by a motion before the WG/TG indicating the ST is not making progress or is going beyond its scope/charter.

Table 1: Typical Working Group, Task Group, and Subteam Characteristics

9. Working Group Meetings

Working Group Meetings may be held in-person (“face-to-face”) or by teleconference. Each is valid provided that it is held in accordance with the procedures set forth in this document.

Dates and venues of Working Group face-to-face meetings shall be determined by the WiMAX Forum staff, taking into account Working Group needs and requests. To encourage cross-WG discussions in support of the overall program goals, every effort will be made to co-locate face-to-face meetings of multiple WGs.

Working Group meetings should avoid major national and religious holidays (including 1 May, 4 July, East Asian New Year, etc.) and should avoid teleconference meetings on weekends as observed in countries of residence of those participating in the meetings. The WiMAX Forum Working Groups should seek out calendars of religious and national holidays to be avoided when scheduling member face-to-face meetings.

All Working Group face-to-face meetings shall be announced via the WG web site and email reflector at least 30 days before the meeting.

All teleconference meetings shall be announced via the WG web site and e-mail reflector at least seven (7) days before the start of the meeting.

Working Group meeting agendas shall be distributed via the Working Group email reflector at least two calendar days before the meeting.

All contributions considered for decision and approval must be posted to the Working Group web site at least 48 hours before the meeting. Contributions should be posted at least 48 hours before the start of a face-to-face meeting. Later contributions can be considered by unanimous consent.

Due to the international nature of the WiMAX Forum, WGs should rotate the start times for teleconferences to avoid the middle of the night in prime geographical locations for at least two of three meetings. The core meeting times are as follows:

Geo 1: 06:00-08:00 PT

Geo 2: 13:00-15:00 PT

Geo 3: 20:00-22:00 PT

The WG Chair is responsible for keeping the discussion on track and moving it forward. The WG Chair has the authority to take irrelevant topics offline and to limit discussion.

The WG Chair may delegate another person to act as facilitator for a WG meeting in the event of the absence of WG officers.

10. Meeting Rules of Order

Working Group meetings are meant to provide a free and open environment in which technical issues are identified and discussed regarding topics necessary to producing a deliverable document. Meeting order is based more on common courtesy than the strictest interpretation of Robert's Rules of Order [3]. The WG Chair has discretion to establish the degree to which Robert's Rules of Order [3] will be observed and to make any exceptions, provided that a Member may protest to the TSC any pattern of decision-making that it believes is inconsistent with the spirit or purpose of the TAP.

Common Courtesy

- Participants should seek recognition by the chair, moderator or facilitator by raising a hand in a face-to-face meeting or speaking up during teleconference calls.
- Participants should address all remarks to the chair, moderator or facilitator.
- Participants should begin their remarks by identifying themselves.
- Participants should line up at the microphone. Those not having the floor should remain silent.
- Participants should speak loudly and clearly so all can hear, standing as necessary if no microphone is used.
- The Chair shall ensure that one topic or motion is considered at a time.
- To speed up the meeting, participants should support the Chair's efforts to keep the group focused on the topic under discussion, avoiding sidebar conversations and the introduction of new topics.

General Process leading to consensus or formal vote

- Discussion based on agenda topic
- Motion raised on the floor
- Motion seconded
- Discussion
- Restatement of motion
- Vote on motion
- Next topic

Taking roll call and maintaining the WG attendance record can be an administrative burden and delay the effective start of the meeting. Roll call should be taken approximately five minutes after the scheduled start of the WG meeting. Roll call can be taken by calling out the current WG Voting Members, allowing WG Participants from such Members to state their presence. In the case of teleconferences, some WGs may elect to allow Members to state their presence as they join the teleconference prior to the conference start, or to record their attendance by Internet-based methods. During face-to-face meetings, an attendance sheet may be distributed. After the roll call for WG Voting Members is complete, the floor will be opened for other Members to announce their presence. If Members miss the formal roll call, it is their responsibility to ensure that their attendance is recorded. The WG Chair should repeat the roll call (or alternative attendance check) at the end of a WG meeting interval for the benefit of members who may have missed the roll call at the start.

WiMAX Forum Members are encouraged to contribute and participate in technical discussions. Attendance for Members will be logged. WG Active Members that transition from Observing Members to paying Membership become WG Voting Members immediately.

11. Working Group Voting

Each WG shall maintain records, available to any WiMAX Forum® Member, of:

- WG Meeting attendance sufficient to readily determine the WG Active Members; that is, those Members whose representatives have attended two of the previous three Working Group Meetings.
- WG Voting Members that are WG Active Members, as updated prior to any WG Meeting or electronic vote or ballot.
- At least one primary representative, and additional alternative representatives, of each WG Voting Member.

If the President, with advice from WiMAX Forum legal counsel or input from TSC Chair, determines that the Member is not complying with the applicable requirements for WiMAX Forum membership, as stated in Section 4 of the Bylaws (and, with respect to Board-level Members only, the Board-approved Board level membership criteria) the President will notify the Member of the violation and the Member's rights to vote as WG Voting Member will be immediately suspended until the President determines, in consultation with WiMAX Forum legal counsel or input from TSC Chair, that the violation has been cleared.

A Working Group decision shall be made by call for consensus, roll call, or electronic vote. The voting method and response deadlines are at the discretion of the Chair and shall be clearly recorded prior to the vote.

For the sake of expediency, all decision-making to be made at meetings should be initiated verbally by a call for consensus by the Chair, during which the Chair may ask if any WG Voting Member objects to a clearly stated motion. In the absence of objection, the Chair can declare the motion approved; this shall be recorded in the meeting minutes. In case of objection, the Chair should continue the discussion in an effort to resolve it, or take a roll call vote to move forward.

The following rules apply to WG voting:

- a) Only Members of the WiMAX Forum shall be entitled to make a motion, second a motion, or cast a vote on matters requiring decision by the Working Group. Observing Members cannot make a motion, second a motion, or vote.
- b) One vote is allocated per WG Voting Member.
- c) Proxy voting is not permitted by any means (including one Member attempting to vote for another, a Member attempting to submit a vote by email in advance of the meeting, etc.). This rule ensures that only those who hear the debate on a motion are voting on the outcome.
- d) As long as a proper quorum exists, a vote (with a 61% approval threshold, based on only the Approve and Disapprove votes, excluding any form of abstention, whether registered actively or by failure to respond) by WG Voting Members is valid.
- e) Before voting, the motion shall be clearly stated and disseminated to all the participants present.
- f) The approval threshold for a WG motion to revise a document that has previously been approved in a Working Group Ballot is 75%. At the time of consideration of a request for such a change, the request requires specific rationale for the change, and it shall be considered only if supported by at least two WG Voting Members. If the WG approves a proposed change to a WiMAX Forum Approved specification, the proposed revision shall be forwarded to the TSC under the usual process for approval of specifications.
- g) Issues that cannot be resolved within the WG shall be escalated to the TSC Chair by the WG Chair. In response to escalations, the TSC will recommend a process for resolution. Parties that are dissatisfied this process may appeal the issue to the President.

Roll-call votes during meetings will be made by verbally soliciting each WG Voting Member present for its vote on the motion. A WG Voting Member may question the presence of Quorum immediately following a vote. In this case, a roll call will be made to determine the presence of a Quorum, based on the presence of at least 50% of the WG Voting Members in the meeting, regardless of the number that cast a vote. If Quorum is found to be lacking, the vote (but only that vote) is invalid.

Electronic voting uses the online ballot tool provided on the WG web site. Electronic voting can be used to make decisions outside of meetings. Electronic voting can also be used during a WG meeting if all attending WG Voting Members have access to the WG web site. Using electronic voting:

- a) The vote is valid only if the 50% Quorum requirement is met, based on the total number of valid votes cast (Approve, Disapprove, or Abstain).

- b) A valid vote is approved if the number of votes to Approve is at least 61% of the votes to Approve plus Disapprove.
- c) The result of the vote shall be archived on the web site.
- d) If the vote is held during a meeting, only WG Voting Members present in the meeting are eligible to vote.
- e) If the vote is outside a meeting, the vote shall be announced to the WG email reflector and to all WG Voting Members. The duration of the vote shall be no less than one week.

A straw poll may be used as a survey to gauge the views of the WG. A Straw Poll is not a vote or a decision method. At the discretion of the WG Chair, a straw poll may be conducted on a per-Member or per-Participant basis and may include all Members or be limited to WG Voting Members.

12. Working Group Development of Draft Deliverables

This Section applies to Working Groups excluding Advisory Working Groups.

Working Groups are chartered by the WiMAX Forum® to draft specifications under defined Work Items approved by the TSC, or to carry out advisory tasks as requested by the TSC Chair. All work on WiMAX Forum Specification development shall take place within an approved Work Item under the control of an assigned Working Group, with a TSC-approved Work Item Initiation Form (WIIF) (attached Appendix B). The Working Group develops specific deliverables in accordance with the Work Item and the project plan developed by the TSC and WiMAX Forum professional staff. The deliverables are usually draft technical documents requiring input and harmonization within each Working Group. Participants share their subject content expertise within the group and the group works through multiple revisions of the draft document to add and harmonize the content. The deliverables must be consistent with the overall vision, mission, and objectives of the WiMAX Forum, as well as with the project requirements as specified in the approved Work Item Initiation Form (WIIF) (attached Appendix B).

Figure 2 illustrates how Working Groups may organize themselves to progress the work following TSC approval of the WIIF.

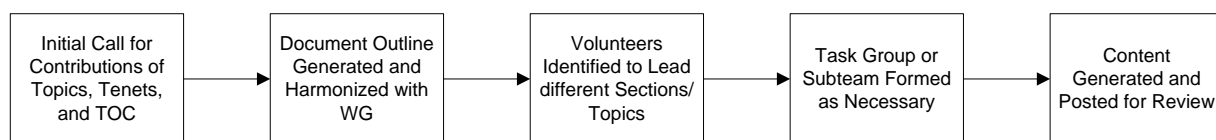


Figure 2: Work Item Development

Much of the activity to generate and harmonize content for a document is performed outside of the Working Group meetings. Figure 3 depicts how contributions are posted, harmonized through comments on the email reflector, and then submitted to the Working Group to include into the deliverable document. The Working Group Chair will work on resolving open issues and identify when content is ready for a WG vote. Note: In Figure 3, as well as in Figure 4 below, approval may be taken by consensus (without objection) in lieu of a formal WG vote.

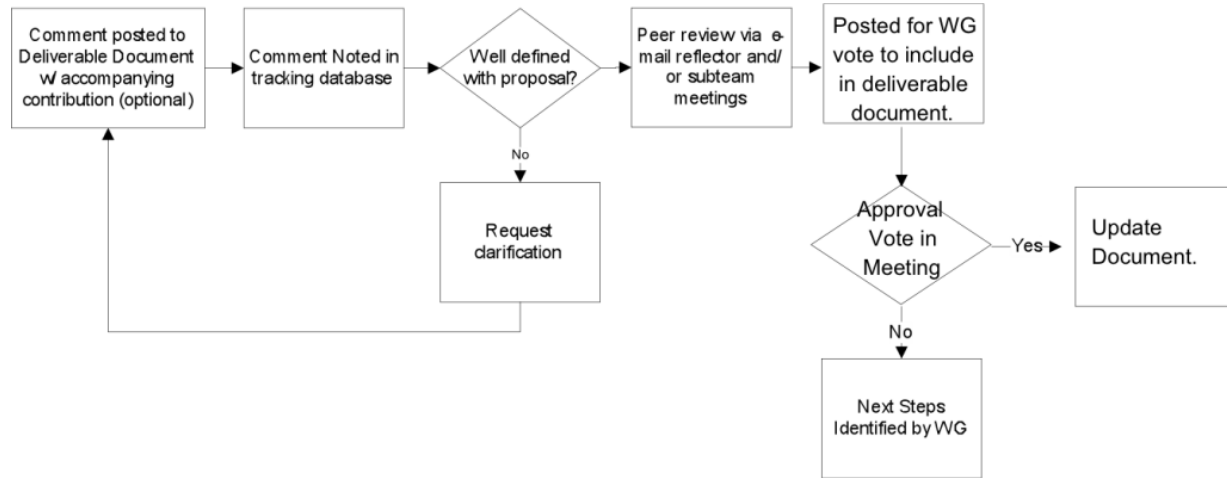


Figure 3: Contributions included in Draft Specification

Each Working Group should make use of specified templates for contributions and submissions. The template should identify the type of information needed by the Working Group and any style requirements to make the incorporation easier for the document editor.

The Working Group continues to review content submissions once they become part of the draft specification. Figure 4 expands the process details to show commenting and issue resolution on the draft specification. Comments must include a well-defined proposal with specific changes needed to improve the draft. If a specific proposal (change request) is not included, the comments may be rejected without further consideration.

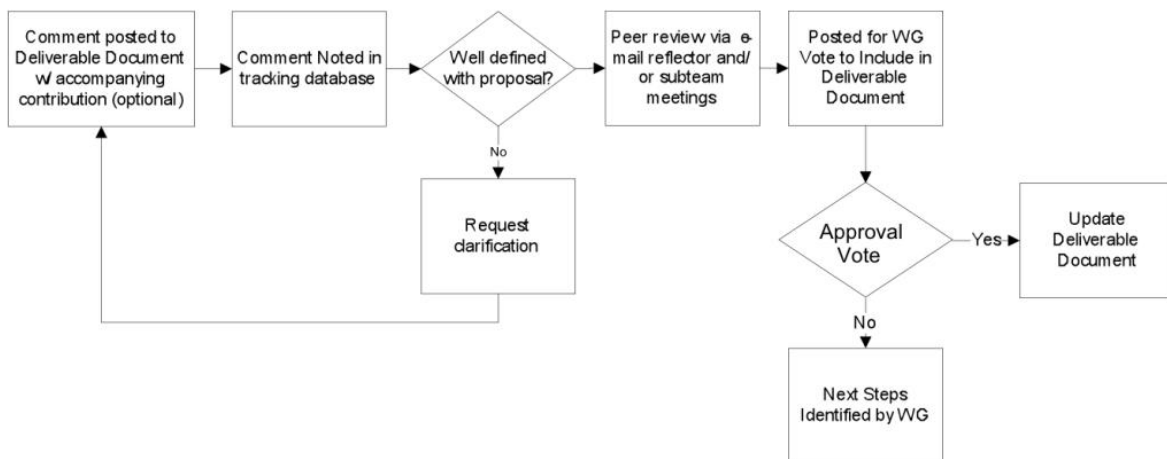


Figure 4: Commenting and Issue Resolution on Draft Specification

Comments on the deliverable drafts are tracked by the Working Group to ensure that all issues are addressed. It is left to the WG to determine the best method to log and track comments against the deliverable draft. The size of the document, the tools available, and the expertise of

the person tracking the comments are some of the factors to consider in determining the best method. Harmonization of tools within the WiMAX Forum is encouraged.

Since the tracking database is associated with the deliverable draft, the document editor is typically responsible for logging and tracking the comments. However, another volunteer may accept this assignment.

13. Ballot Review of Draft Specifications

A draft specification deliverable under development in an authorized Work Item is eligible for presentation to the TSC for approval only after successful conclusion of Ballot Review. Successful completion of a formal WG Ballot Review provides the draft with status as a Working Group Approved Draft Specification.

The Ballot Review Process (Figure 5) is used to confirm approval of a draft deliverable by the WG specified in the approved Work Item Initiation Form (WIIF) (attached Appendix B). This process is an important step since it constitutes a complete document review by those directly involved in development. It is the last chance for Members to show a level of confidence in the document and make final changes. Each particular WG Ballot Review will have a Ballot Voter Group consisting of the Voting Members of the WG at the start of the Ballot. During the Ballot Review, the release candidate document is posted and a ballot is created on the WiMAX Forum web site. The Ballot Review Process shall take place using the online ballot tool.

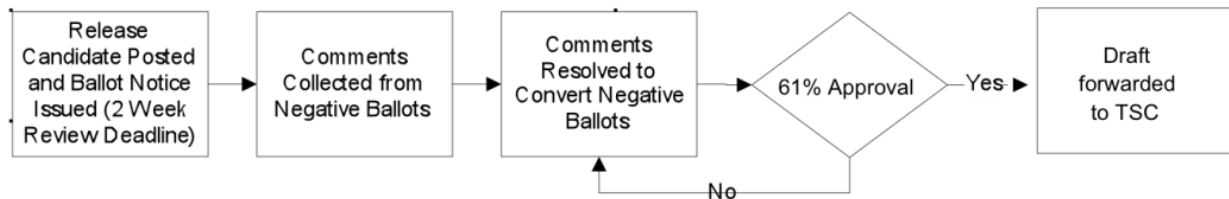


Figure 5: Ballot Review Process for Draft Specification

There is a minimum two-week deadline to return comments, but voters are urged to submit their ballots as soon as possible so the group can begin addressing the comments. To establish Quorum, at least 50% of the Ballot Voter Group as of the start of the ballot must submit a ballot with approval, disapproval, or abstention. If a Quorum is not attained in the specified period, then the ballot shall not be valid.

A vote to approve may include technical-noncritical and/or editorial comments. For a comment to be considered valid, it must include specific changes needed to rectify the concern.

A vote to disapprove must include technical-critical comments and may include technical-noncritical and editorial comments. Comments must include specific changes needed to rectify the concern to be considered valid. The voter must classify as critical the specific review comments that must be incorporated to convert the Member's vote. In other words, the critical comments are those that prevent the voter from approving the document and all critical comments must contain specific changes that, if incorporated, would allow the voter to switch to an affirmative vote.

The Working Group must resolve all comments that are classified as technical-critical and implement any necessary changes before sending the document to the TSC for approval. There is no requirement for the Working Group to make editorial changes before submitting the document to the TSC.

Ballot review comments can be resolved by 1) accepting the requested change as stated, 2) accepting the requested change with modification, 3) deferring to a future release, or 4) rejecting the request with explanation, or 5) withdrawal by the comment submitter. It is the responsibility of the group officers to try to resolve comments with consensus, harmonize the requested changes, and convert as many disapproval votes to approve as possible. If comments cannot be resolved by consensus, a formal vote among the group may be used.

After a Ballot Review, the WG shall prepare a Ballot Review summary that collects all the comments from the ballots and states the action taken with respect to each comment. The draft specification shall be edited to reflect any changes made as a result of the Ballot Review and shall be circulated along with the Ballot Review summary to the Ballot Voter Group. As long as at least 61% of the Ballot Voter Group has approved the ballot with the critical ballot comments resolved, the decision to perform another complete Ballot Review cycle is left to the Working Group. This decision is based on the number and type of comments received, how many members converted their votes from disapproval to approval, the level of consensus for critical comments, and the overall quality of the document.

Following Ballot Review, the WG must complete and submit to the WMF staff a Draft Specification Submission Form (DSSF) (attached Appendix A) that documents the proposal and includes links to the following: (1) the active Work Item Initiation Form, (2) documentation of the Ballot Review results, including the numerical results, the individual results, the comments received, and the actions or responses regarding those comments, and (3) the draft specification.

14. Approval and Publication of WiMAX Forum® Specifications

The WMF staff is responsible to maintain lists of documents that have been approved (or are under development for approval) as WiMAX Forum® Specifications, identifying the corresponding Release of each document.

Any activity to develop a draft WiMAX Forum Specification shall occur within a Work Item authorized by an approved Work Item Initiation Form (WIIF) (attached Appendix B), with a Work Item Identification Number assigned within the Work Item Initiation Form. Only the TSC is authorized to approve a Work Item on behalf of the WiMAX Forum.

Following a successful Ballot Review Process, the WG shall be responsible to prepare the Draft Specification Submission Form (DSSF) (attached Appendix A), and submit it to assigned WMF staff who will check it for completeness and forward it to the TSC for approval consideration. The DSSF shall document the proposal and include links to the active Work Item Initiation Form, the draft specification, and the full documentation of the Ballot Review results.

In parallel with TSC review, the WMF staff shall forward the draft specification for IPR Review and Copyright/Trademark Review. When the documentation is in order, the draft, the DSSF, and evidence of the IPR Review will be forwarded for review and approval by the President and then confirmation of the Board, after which it shall be considered a WiMAX Forum Approved Specification. The specification will not be published to the general public unless the Work Item Initiation Form includes a positive response to the question “Is the resulting WiMAX Forum Specification intended for external publication?”

The WMF staff, in publishing a specification, shall assign it to one or more specific Releases, in accordance with the Release assignment specified in the approved Work Item Initiation Form.

Further details are provided in WiMAX Forum Documentation Structure and Identification (WMF-A11-001).

15. Regulatory Working Group

The Regulatory Working Group is an Advisory Working Group. Its deliverables follow the process as shown in Figure 6. The Regulatory Working Group delivers responses to government consultations on regulatory matters. Strategy documents for promotion of WiMAX Forum interests in different geographic/regulatory regions may from time to time be approved by the President consistent with the overall vision, mission, and objectives of the WiMAX Forum. Regulatory responses are typically time-critical and must respond to unique and specific questions posed in the consultation. The Regulatory Working Group analyzes the government request; consults with relevant Working Groups on technical issues; develops a response based upon the overall vision, mission, and objectives of the WiMAX Forum; ensures agreement within the Working Group; and issues the response. Additional approval is not required.

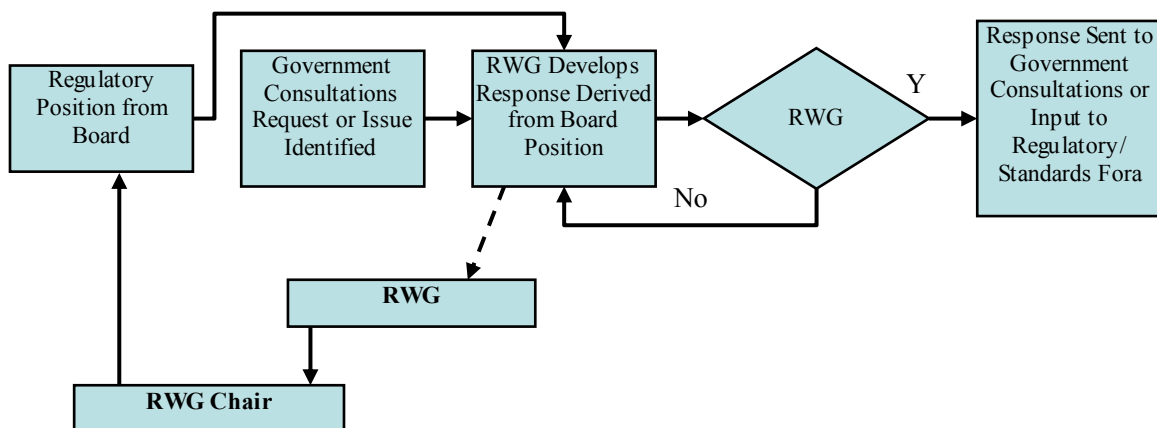


Figure 6: Development of Regulatory Working Group Consultation Responses

The RWG also coordinates and may give final approval to WiMAX Forum contributions to radio regulatory fora (e.g. ITU, CEPT) where these align with established WiMAX Forum policies.

The TSC email reflector shall be promptly notified of any documents completed by the Regulatory Working Group.

16. Marketing Working Group

The Marketing Working Group is an Advisory Working Group. It is also, per the WiMAX Forum® Bylaws, a formally established “standing advisory committee” of the WiMAX Forum. Per those Bylaws:

The Marketing Working Group is composed of member company volunteers who wish to participate in the development and oversight of the promotional activities of the organization. Such oversight will be under the general authority and supervision of the board and will include, without limitation, the supervision and implementation of the organization's participation at trade shows/events, public speaking engagements, advertising, public relations, web site

development and maintenance, as well as other promotional programs or projects approved by the board.

The Chair or Co-Chairs of the Marketing Working Group will conduct regular meetings of member volunteers who have agreed to participate. Working group sessions will be noticed to the membership via the corporation's web site and summary meeting notes will be prepared and distributed to the members of the Marketing Working Group and the board of directors. Records of these meetings will be maintained at the corporation's principal office.

The Marketing Working Group shall also assist in the development of a marketing plan for the organization under the supervision of the Treasurer, together with the budget for conducting marketing activities.

17. Global Roaming Working Group

The Global Roaming Working Group is an Advisory Working Group. The GRWG Works to assure availability of global roaming service for WiMAX technology in a timely manner as demanded by the marketplace. GRWG coordinates with operators and vendors to define roaming requirements in conjunction with SPWG and to create roaming specification to enable global roaming.

18. Antitrust Compliance Policy and Guidelines

All interactions in the WiMAX Forum®, whether in connection with formal or informal WG activities or otherwise, are governed by the WiMAX Forum Antitrust Compliance Policy and Guidelines (the “Antitrust Guidelines”). All Members are responsible for becoming familiar with the Antitrust Guidelines and the related legal requirements and providing appropriate instruction to all WG Participants participating on their behalf to ensure that their conduct is in conformity with the requirements of the Antitrust Guidelines, the antitrust and competition laws of the United States and the European Union, and the antitrust and competition legal requirements in their home country. The following procedures should be observed at all Working Group meetings:

- At the beginning of each meeting, the chair, moderator or facilitator shall remind the Participants that the meeting is being held subject to the requirements of the Antitrust Policy and that all Participants are to avoid statements or conduct that might violate the Antitrust Policy or the antitrust or competition laws of any country.
- If any Participant makes a statement or engages in conduct that another Participant believes may violate the Antitrust Policy or any law, that Participant is encouraged to voice his/her concern by bringing the issue to the attention of the chair, moderator or facilitator. The chair, moderator or facilitator, as applicable, should then immediately discontinue the discussion or conduct that gave rise to the concern. If the chair, moderator or facilitator is unable to obtain compliance from the meeting Participants, he should immediately adjourn the meeting and contact WiMAX Forum legal regarding the issues raised.

19. Managing Intellectual Property

The WiMAX Forum Intellectual Property Rights (“IPR”) Policy (the “IPR Policy”) is the controlling document for patent, copyright, and trademark rights within the WiMAX Forum and in WiMAX Forum-generated materials. The purpose of this Section is to help implement the IPR

Policy. Any conflict between the provisions of this Section and the IPR Policy shall be resolved in favor of the IPR Policy.

Each Working Group Participant is responsible for reading and abiding by the terms of the IPR Policy available at <<http://www.wimaxforum.org/membership/membership-terms>>.

All technical draft specifications, including Stage 1 requirements documents (as defined in WMF-A11-002 [“WiMAX Forum Release Structure and Process”]), are required to undergo the review described in Article 5 of the IPR Policy. Some WGs are created for activities that are not likely to result in the need to disclose Necessary Claims (as defined in the IPR Policy). A WG may be designated as a “non-IPR” WG only if the President designates such WG as a “non-IPR” WG, the WiMAX Forum prescribes appropriately modified procedural rules relating to intellectual property rights within such WG, and such WG is explicitly identified as “non-IPR” WG on its web page. This shall not relieve WG Participants or WG Voting Members of their obligations under the IPR Policy during their participation in WG activities.

During the drafting of the Specification (as defined in the IPR Policy) by the WG, the following procedures shall apply:

- The WG Chair shall notify WG Participants at each WG meeting of the IPR Policy and, as outlined in the IPR Policy, encourage all participants to disclose patents or patent applications that constitute, or are likely to constitute, “Necessary Claims” under the IPR Policy.
- The WG Chair’s request for IPR disclosures shall be noted in the minutes of each meeting.
- If any participant is aware of the existence of potential Necessary Claims in relation to the current draft, they should identify these verbally in the meeting with enough information to permit the inclusion of proper note in the meeting minutes. In this case, the WG Chair shall forward the minutes to the appropriate WMF staff, which will email the participant and request completion of the online IPR disclosure form, if applicable.
- As soon as practicable after the meeting, a representative from the member company with potential Necessary Claim should make a formal disclosure of such Necessary Claim using the online IPR disclosure form for this purpose and may, in addition, forward a licensing declaration to the WiMAX Forum’s designated contact that the President has designated for this purpose (the “IPR Administrator”). If the member, upon further consideration of the matter, does not believe that its patent or patent application contains a Necessary Claim under the IPR Policy, it shall provide a detailed explanation to the IPR Administrator as to why it believes that no Necessary Claim exists.
- Following this formal disclosure using the online IPR disclosure form, the IPR Administrator will conduct a review regarding the disclosure and determine if further action under the IPR Policy is required. Identified issues will be reported to the President, who will report the matter to the Board.

After the draft Specification is completed by the WG, it shall be subject to the notice and review requirements under Article 5 of the IPR Policy (the “IPR Review”). The following procedures apply for the IPR Review:

- (1) The appropriate WMF staff shall make the draft Specification available to all members for review for at least a thirty-day period using an announcement substantially in the form described in Section 19.1 below. Such draft Specification shall include a reference to a publicly accessible Necessary Claims database listing all known Necessary Claims, if any.

- (2) Any disclosures of additional Necessary Claims, if any, as a result of the IPR Review process shall be made using the online IPR disclosure form during the thirty-day period provided above.
- (3) During the Board confirmation of the draft Specification, the draft Specification shall include a reference to the publicly accessible Necessary Claims database listing all identified Necessary Claims (including additional Necessary Claims submitted during the IPR Review), if any.
- (4) The final approved Specification shall also include a reference to the publicly accessible Necessary Claims database listing any and all of the Necessary Claims (including additional Necessary Claims submitted during the IPR Review).
- (5) Following the disclosures of the Necessary Claims as described above, if any, the IPR Administrator will determine if further action under the IPR Policy is required.

Requests to the Board for confirmation of the draft Specification shall be accompanied by evidence of IPR Review, or justification for the absence of such review.

19.1 Form of IPR Review Announcement

The IPR Review shall be initiated with a message delivered to the WiMAX Forum members via the WiMAX Forum membership email list. The text of such message shall be substantially in the form as follows:

RE: IPR Policy Notice and Review Period for Draft Specifications

Dear Members:

Section 5.1 of the WiMAX Forum Intellectual Property Rights Policy (the “IPR Policy”) provides for notice to the members and a thirty-day review period in connection with the final formal adoption of a Specification (as defined in the IPR Policy). The [Working Group] has completed the following documents (the “Draft Specifications”) and submitted them to the WiMAX Forum Technical Steering Committee (“TSC”) for approval in accordance with the Technical Activity Procedures (“TAP”). Following the TSC’s approval, we expect the Draft Specifications to be submitted to the WiMAX Forum Board of Directors for confirmation. The Draft Specifications are also now available for review by all members at the links listed below:

- [Title of Draft Specification 1]
[URL to Draft Specification 1 at TSC document area]
- [Title of Draft Specification 2]
[URL to Draft Specification 2 at TSC document area]
- [etc.]

This message signals the beginning of the thirty-day review period under Section 5.1 of the IPR Policy. The expiration of the review period is set at **[time] Pacific Time on [date] [month] [year]**. Upon the expiration of the thirty-day review period, the Draft

Specifications, and all Necessary Claims therein, shall be irrevocably subject to the licensing provisions described in Section 4.1 of the IPR Policy.

The IPR Policy does not require the disclosure of Necessary Claims, but members are encouraged to submit such disclosures by completing the online submission form at www.wimaxforum.org/resources/ipr.

Should a member have a communication regarding a noncontributed Necessary Claim in the Draft Specifications that the member wishes to submit pursuant to Section 5.3 of the IPR Policy, please direct that communication to our IPR Administrator ipr@wimaxforum.org.

Sincerely,

[name]

WiMAX Forum

20. Working Group Spending

No WiMAX Forum® Member participant, even one serving as a WG Officer, is authorized to issue a purchase order or to enter into an explicit or implicit agreement that imposes financial obligations upon the WiMAX Forum.

21. Technical Coordination Committee (TCC)

The TCC is responsible for coordination, facilitation and communication regarding operational and process issues that require input from multiple Working Groups. The TCC may provide recommendations to the TSC on the matters relevant to TSC's scope of work. The TCC may provide recommendations regarding documents under consideration.

The members of the TCC are the WiMAX Forum Working Groups, each represented by one or more officers. The TCC Chair is appointed by the President with approval by the Board. All Working Group Officers, Task Group Chairs, WMF staff members, WiMAX Forum Directors and Officers, and persons invited by the President or the TCC Chair may attend as Participating Observers.

Representatives of Members are normally entitled to observe TCC meetings and discussions as Non-Participating Observers. The TCC may decide to hold certain discussions private, excluding Non-Participating Observers.

Attendance and Decision-Making within TCC

The TCC is a coordination body and will normally make any decisions on a consensus basis. Should a need arise for voting on a motion, voting in the TCC is according to the following:

Each Working Group shall have one vote in the TCC. Votes shall be conducted via roll call during TCC meetings or teleconferences, or conducted by electronic ballot. Motions to bring issues to vote may be made by a member of the TCC or by the Chair. Measures receiving at least 61% of the sum of those voting for and against the measure shall be deemed to have passed, with Abstain not counted.

22. Maintenance of these Procedures

The TSC is responsible for maintenance of the TAP and the associated procedures. Changes to these procedures may be made by vote of the TSC and become effective once approved by the President and Board.

23. References

- [1] WMF-A11-001, WiMAX Forum® WiMAX Forum Documentation Structure and Identification
- [2] WMF-A11-002, WiMAX Forum® WiMAX Forum Release Structure and Process
- [3] Robert's Rules of Order, <http://www.robertsrules.org/>

Appendix A: WiMAX Forum® Draft Specification Submission Form (DSSF)

1. Submission Date (YYYY-MM-DD): _____

2. Document Number of Draft Spec: _____

3. Full Title of Draft Specification: _____

4. Work Item Development Group (*name of WG*): _____

5. Contact Person for this submission: _____

6. Please provide URL's for the following:

- Work Item Initiation Form (TSC-Approved WIIF)
URL: _____
- Draft Specification (WG-Approved)
URL: _____
- WG Approval Documentation
URL: _____

7. Requested TSC approval date: _____
(normally, at least one weeks notice required)

8. If electronic TSC ballot requested, specify justification and needed completion date:

9. Industry Release (*mark "X" below for all that apply*):

Release 1	Release A	Release B	Release C

10. Certification relevance (*mark "X" below for all Certification Tracks that apply*):

WiMAX Open Retail	WiMAX Compact Functionality	WiGRID	AeroMACS	WiMAX Advanced Open Retail

11. Document Categories (*click the check box below for all that apply*):

- **WMF Process/Administrative Documents**
- **Roaming**
- **Requirements:**
 - Air Interface:
 - WiMAX
 - WiMAX Advanced
 - Network:
 - WiMAX Air Interface
 - WiMAX Advanced Air Interface
 - Air Interface Independent
- **Air Interface:**
 - WiMAX
 - WiMAX Advanced
- **Network**
 - WiMAX Air Interface
 - WiMAX Advanced Air Interface
 - Air Interface Independent

Appendix B: WiMAX Forum® Work Item Initiation Form (WIIF)

1. Submission Date: (YYYY-MM-DD): _____

2. Proposed Draft Identification Number: _____

3. Full title of Draft Specification: _____

4. Work Item Development Group (*name of WG*): _____

5. WiMAX Forum Technical Topic Area and Stage (*mark "X" below for all that apply*):

	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Network						
Air Interface						
Roaming						

6. Specification scope statement. To be inserted verbatim into Draft Specification as Scope section.

7. Justification/need for this work item. Summarize in one paragraph.

8. Will any WiMAX Forum Specifications from any release become obsolete upon completion of this work item?

Yes No

If yes, please list below. Include Specs from all Releases.

Number of Specification to become obsolete	Comments

9. List anticipated key milestones and dates in chronological order.

Milestone	Forecast Completion Date	Task Owner

10. Are any current WMF work items or projects linked or related to this work item?

Yes No

If yes, please list below and include any dependencies or predecessors.

Related Work Item Number	Key Milestone/Task	Comments

11. Are any WiMAX Forum or external standards related to this activity?

Yes No

If yes, please list below.

Standard or Specification	Name of Organization	Relationship

12. Will this Work Item relate to other WiMAX Forum activities? If so, how?

Aspect	Yes	No	Don't Know	Relationship and Impact
Certification				
Marketing				
PKI				
Regional				
Regulatory				
Roaming				
Other (specify)				

13. Work Item Lead

Name	Work Item Development Group	Company

14. Work Item Editor:

Name	Company

15. Will the resulting WiMAX Forum Specification be externally published?

___ Yes ___ No

16. Supporting Member Companies

Company	Contact Person	Contact Email

17. Work Item Development Group Approval Documentation:

Work Item Group Approval Date	Record Location of Work Item Development Group Approval (URL to Meeting Minutes)

18. WiMAX Forum Technical Staff Acceptance History

WMF Acceptance Date	WMF Reviewing Individual

19. TSC Approval Documentation

TSC Approval Date	Record Location of TSC Approval (URL to Meeting Minutes)

20. History of this Work Item Initiation Form

Date	Revision Made By	Reason	Comments