1. OFFICES

1.1 Principal Office.
The principal office of the Corporation shall be located at 48377 Fremont Blvd., Suite 117, Fremont, CA, USA 94538. The designation of the Corporation’s principal office may be changed from time to time by the Board of Directors, which change of address shall be effective upon written notice to all Members.

1.2 Other Offices.
The Corporation may also have offices at such other places, within or without of the State of Delaware, where it is qualified to do business, as its business and activities may require, and as the Board of Directors may, from time to time, designate.

2. PURPOSES

The Ultra HD Forum is an open forum composed of a broad range of participants from the movie and television ecosystem, including content creators, content distributors, consumer electronics manufacturers, professional equipment manufacturers and technology companies. By virtue of its diverse membership, the Ultra HD Forum will advocate an industry consensus around common technical standards, recognizing that some types of content or delivery may impose certain technical constraints. The success of the Ultra HD Forum will be achieved when a new category of diverse Ultra HD content is commonly available through all forms of distribution. The Corporation shall be a business league not organized for profit within the meaning of Section 501(c)(6) of the Internal Revenue Code of 1986, as amended (the "Code"), or any successor provision, for purposes including, but not limited to the following:

2.1 Developing Guidelines that use best practices for the implementation of end-to-end systems for the generation, distribution and rendering of next generation media including Ultra HD, high dynamic range, wide color, high frame rate and other related technologies.

2.2. Ensuring that the developed Guidelines address the needs of real-time workflows with capture of live content for Live and On Demand distribution through broadcast, multicast and unicast deliveries

2.3 The Ultra HD Forum is not a Standards Development Organization (SDO) but will facilitate the development, coordination, harmonization and adoption of relevant standards being developed in various media-related standard
organizations and consortia, especially across the use cases of live, real-time, episodic, on-demand, broadcast, streaming, download and physical media distribution;

2.4 Assisting in avoiding fragmentation of Ultra HD and related media standards by promoting the use of common profiles across industry, consortia and various standard organizations;

2.5 Facilitating interoperability tests and plug-fests to demonstrate the usability and comprehensiveness of Ultra HD and related media standards; and

2.6. Describe and promote the use of Ultra HD and related media services that meet the scope of the Ultra HD Forum. Be a central repository for relevant Ultra HD and related media workflows.

2.7 Organize industry wide events where Ultra HD and related media applications, deployments, and successes are presented.

2.8 The Forum shall work to inform the industry regarding appropriate standards, best industry practices, and enabling technologies through the production of white papers, the organization of informational “Master Classes” at major industry events and the demonstration of end-to-end solutions and proof of concept systems with common content created through diverse workflows.

In addition to the above, the Corporation may enable internal or external certification and testing programs, develop white papers, develop interoperability guidelines to enable interoperability in instances where other groups or bodies are unwilling or unable to develop such guidelines in a timely and proficient manner and interface with other groups or bodies developing complementary standards and specifications.

3. DEFINITIONS

3.1 “Affiliate” or “Affiliates”
“Affiliate” or “Affiliates” means any entity, now or hereafter, that is controlled by, under common control with, or that controls the subject party. For purposes of this definition, “control” means direct or indirect control of more than 50% of the voting power to elect directors of a corporation in the case of a corporate entity, or for any other entity, the power to direct management of such entity. Notwithstanding the foregoing, the Board of Directors may exempt certain organizations from being classified as a Member’s Affiliate upon a Supermajority vote of the Board of Directors.
3.2 “Associate Member”
“Associate Member” shall mean all Members of the Corporation who so qualify in accordance with the provisions of Sections 4.1.3 and 4.2.

3.3 “Charter Member”
“Charter Member” shall mean all Members of the Corporation who so qualify in accordance with the provisions of Sections 4.1.1, 4.2, and 4.3.

3.4 “Corporation”
“Corporation” shall mean Ultra HD Forum or Ultra HD Forum Inc.

3.5 “Code”
“Code” shall mean the Internal Revenue Code of 1986, as amended from time to time.

3.7 “Contributor Member”
“Contributor Member” shall mean all Members of the Corporation who so qualify in accordance with the provisions of Sections 4.1.2 and 4.2.

3.8 “Deliverable”

3.9 “DGCL”
DGCL shall mean the Delaware General Corporation Law, as it may be amended from time to time.

3.10 “Draft Deliverable”

3.11 “Draft Informational Documents”
“Draft Informational Documents” shall have the meaning set forth in the IPR Policy.

3.12 “Draft Guideline”
“Draft Guideline” shall have the meaning set forth in the IPR Policy.

3.13 “Draft Test Materials”
“Draft Test Materials” shall have the meaning set forth in the IPR Policy.
3.14 “Executive Director”
“Executive Director” shall mean an employee or contractor of the Corporation whose duties and responsibilities are set forth in Section 7.8 below. The Executive Director shall be an individual who is not a member of the Board of Directors.

3.15 “Feedback Agreement”
“Feedback Agreement” shall mean the Feedback Agreement set forth in Appendix A or one that is substantially similar.

3.16 “Final Deliverables”
“Final Deliverables” shall mean Final Informational Documents, Final Guidelines, and Final Test Materials.

3.17 “Final Informational Document”
“Final Informational Document” shall have the meaning set forth in the IPR Policy.

3.18 “Final Guideline”
“Final Guideline” shall have the meaning set forth in the IPR Policy.

3.19 “Final Test Materials”
“Final Test Materials” shall have the meaning set forth in the IPR Policy.

3.20 Founding Member
“Founding Member” shall mean a Member company which has executed the Charter Member Agreement within 30 days of the formation of the Ultra HD Forum.

3.21 “IPR Policy”
“IPR Policy” shall mean the policy entitled “Ultra HD Forum Intellectual Property Rights Policy” as adopted by the Board of Directors and set forth at Appendix B, as it shall be amended from time to time.

3.22 “Member”
“Member” shall mean a general reference to all Charter Members, Contributor Members, and Associate Members who have qualified as members in such classifications pursuant to the provision of these Bylaws.

3.23 “Member Agreement”
“Member Agreement” shall mean the applicable Charter Member Agreement, Contributor Member Agreement, and/or Associate Member Agreement, approved by the Board of Directors of the Corporation and applicable to the Member, in the context of each use of that term herein.
3.24 “Supermajority”
“Supermajority” shall mean an affirmative vote of seventy five (75%) percent or more of all the Directors (as defined in Section 4.1 below) in office.

4. MEMBERSHIP

All Members are required to abide by these Bylaws and to execute a Member Agreement as a condition of becoming and remaining members of the Corporation.

4.1 Classes of Membership.
There shall be three classes of Members: Charter Members, Contributor Members, and Associate Members. The Board of Directors (referred to herein individually as “Directors”) may add or eliminate additional classes of Members at any time. Except as expressly provided in or authorized by the applicable Member Agreement, the Certificate of Incorporation, the Bylaws of this Corporation, or provisions of law, Members shall have the rights, privileges, restrictions, and conditions established by resolution of a Supermajority of all the Directors in office. Among the benefits generally to be afforded to all Members are the right to attend meetings of the general Members of the Corporation, access to Final Deliverables and other materials as may be approved by the Board of Directors, access to the general Member portions of the Corporation’s web site, and the right to license any Trademark or logos adopted by the Corporation in products implementing Final Deliverables. The benefits and privileges of each class of Member are defined below:

4.1.1 Charter Members.
The Corporation shall have a class of members called Charter Members. All Charter Members must execute a Charter Member Agreement, in the form approved by the Board of Directors, and pay the fees called for therein for Charter Members. Following the execution of a Charter Member Agreement and for so long as such agreement shall remain in effect, all Charter Members shall be entitled to all rights and be bound by all obligations stated therein, in the IPR Policy, and generally afforded to and generally afforded and imposed upon all Members. Other benefits specifically afforded to Charter Members who remain in good standing (which for purposes of these Bylaws means that the Member continues to meet the eligibility requirements of Section 4.2 and is current on its dues payments) are those benefits afforded to Contributor Members and Associate Members, and, in addition:
(1) The right to nominate and elect representatives for Board of Director positions in accordance with Section 5;
(2) The right to be listed in all press releases and events of the Corporation;
(3) The right to be listed as a Charter Member on the Corporation’s web site;
(4) The right to participate in the Corporation’s promotional activities such as interoperability workshops or certification programs at Member rates; and
(5) The right to participate as a voting member of Work Groups

4.1.2 Contributor Members.
The Corporation shall have a class of members called Contributor Members. All Contributor Members must execute a Contributor Member Agreement, in a form approved by the Board of Directors, and pay the fees called for therein for Contributor Members. Following execution of a Contributor Member Agreement and for so long as such agreement shall remain in effect, all Contributor Members shall be entitled to all rights and be bound by all obligations stated therein, in the IPR Policy, and generally afforded and imposed upon all Members. Other benefits specifically afforded to Contributor Members who remain in good standing are those benefits afforded to Associate Members and in addition:
(1) The right to be listed as a Contributor Members in all press releases of the Corporation;
(2) The right to vote in Board of Director elections;
(3) The right to be listed as a Contributor Member on the Corporation’s web site;
(4) The right to participate in the Corporation’s promotional activities such as interoperability workshops or certification programs at Member rates; and
(5) The right to participate as a voting member of Work Groups

4.1.3 Associate Members.
The Corporation shall have a class of members called Associate Members. Associate Membership is open to all companies with annual revenue less than $10 million US Dollars per year, academic institutions and sole proprietor consultants. All Associate Members must execute an Associate Member Agreement, in the form approved by the Board of Directors, and pay the fees called for therein for Associate Members. Following execution of an Associate Member Agreement and for so long as such agreement shall remain in effect, all Associate Members shall be entitled to all rights and bound by all obligations stated therein, in the IPR Policy, and generally afforded and imposed upon all Members. Associate Members who remain in good standing shall be entitled to the following benefits:
(1) The right to be listed as an Associate Member on the Corporation’s web site;
(2) The right to participate in the Corporation’s promotional activities such as interoperability workshops or certification programs at Member rates; and
(3) The right to participate as a voting member of Work Groups.

4.2 Membership Qualifications.
The qualifications for membership in the Corporation are as follows: (i) the applicant must be supportive of the Corporation’s purposes, as acknowledged and agreed to in the applicable Member Agreement; (ii) the applicant must not otherwise be prohibited by treaty, law, or regulation from abiding by the terms of
these Bylaws; and (iii) the applicant must pay the then-current annual dues applicable to the relevant Member classification.

4.3 Admission of Members.
Applicants qualified under Section 4.2 above and applying for membership as a Charter Member shall be admitted to membership as a Charter Member to the extent that:
4.3.1 such applicant’s membership as a Charter Member has been approved by the affirmative vote of at least two thirds (2/3) of all the Directors in office;
4.3.2 such applicant has affirmed the Certificate of Incorporation and these Bylaws;
4.3.3 such applicant has executed a Charter Member Agreement; and
4.3.4 payment has been made by such applicant of the applicable annual dues as specified in the Member Agreement.
Applicants qualified under Section 4.2 above and applying for membership as a Contributor Member or Associate Member shall be admitted to membership on the same basis as a Charter Member except that there shall be no requirement of a Board of Directors vote as contemplated by Section 4.3 (a) above.

4.4 Fees and Dues.
The annual dues payable to the Corporation by each class of Members shall be established and may be changed from time to time by resolution of a majority of all the Directors in office. Initial dues shall be due and payable upon execution of a Member Agreement according to terms defined in the Member Agreement. In addition to the termination provisions of Section 4.9.1, any Member that is delinquent in the payment of any dues shall be deemed suspended upon written notice from the Corporation until all delinquent dues are paid.

4.5 Number of Members.
Subject to Section 4.3, there is no limit on the number of Members the Corporation may admit.

4.6 Membership Roll.
The Corporation shall keep a membership roll containing the name and address of each Member, the date upon which the applicant became a Member, and the name and contact information of one (1) individual from each Member organization who shall: serve as a primary contact for the Corporation, receive all correspondence, notices and information, distribute such correspondence, notices and information within his or her organization, and vote on all issues submitted to a vote of the Members. Termination of the membership of any Member shall be recorded in the roll, together with the date of termination of such Member. Such roll shall be kept at the Corporation’s principal office. Membership in the Corporation is a matter of public record; however, membership lists will not be sold or otherwise be made
available to third parties. The Corporation shall use addresses and other contact
information provided by Members on their Member Agreements. If the address or
other contact information of a Member changes, it shall be the responsibility of the
Member to provide the Corporation with updated information.

4.7 Non Liability of Members.
No Member of this Corporation, as such, shall be individually liable for the debts,
liabilities, or obligations of the Corporation.

4.8 Non Transferability of Membership.
Subject to Section 4.9.4, no Member shall be permitted to assign its Member
Agreement without the affirmative vote of two thirds (2/3) of all the Directors in
office, and any purported assignment without such written approval shall be null
and void.

4.9 Termination of Membership.
The membership of a Member shall terminate upon the occurrence of any of the
following events:

4.9.1 Failure to Renew Membership.
Upon a failure to initiate or renew membership by paying dues on or before their
due date (as set forth in the applicable Member Agreement), such termination to be
effective thirty (30) days after a written notification of delinquency is given
personally or mailed to such Member by the Executive Director of the Corporation.
A Member may avoid such termination by paying the amount of delinquent dues
within a thirty (30) day period following the Member’s receipt of the written
notification of delinquency.

4.9.2 Resignation.
Upon fifteen (15) days written notice from the Member. For clarity, the effective
date of withdrawal is the date of notice and the effective date of termination is
fifteen (15) days from the date of withdrawal.

4.9.3 Violation of Policies or Duties of Membership.
Upon unanimous vote of all Disinterested Directors (defined below) when such
Disinterested Directors determine, after affording the Member in question the right
to be heard on the issue, that the Member has violated any material provision of
these Bylaws, the Member’s Member Agreement, or other policies and procedures
duly approved by the Board of Directors, including the requirements for Members
as stated in Section 4.2 and failed to cure where, in the discretion of a majority of the
Disinterested Directors, such violation can be cured. For purposes of this Section
4.9.3, a “Disinterested Director” is a Director who is not employed by the Member subject to the vote for termination.

4.9.4 Member’s Dissolution.
Upon a Member’s dissolution, in the event that two (2) or more Member organizations are merged or a Member entity is acquired by another Member entity, the resulting entity shall have only one (1) membership.

4.10 Rights of Members.
All rights of a Member in the Corporation shall cease on termination of membership as herein provided. A Member terminated from the Corporation shall not receive any refund of dues already paid for the current dues period.

4.11 Distribution of Assets Upon Dissolution.
Upon a dissolution of this Corporation, and after all of the known debts and liabilities of this Corporation have been paid or adequately provided for in accordance with applicable state and federal corporate laws, any remaining net assets of the Corporation shall be distributed by the Board of Directors to one or more organizations selected by the Board of Directors which will help to further the purposes of the Corporation. No part of the Corporation's net earnings will inure to the benefit of any Member, Director, or private person. Any such plan of distribution will be conducted in accordance with the Corporation’s tax status under United States Internal Revenue Code Section 501(c) (6).

5. BOARD OF DIRECTORS

5.1 Powers.
Subject to the limitations of the Certificate of Incorporation, of these Bylaws, and of the DGCL and subject to the duties of Directors as prescribed by these Bylaws, all corporate powers shall be exercised by or under the authority of, and the business and affairs of this Corporation shall be controlled by, the Board of Directors. The Board of Directors shall have the power to (i) select and remove all officers, agents, employees, and contractors, and to fix reasonable compensation thereof, (ii) to authorize and empower officers or agents to enter into contracts and other commitments on behalf of this Corporation, and (iii) to create committees and appoint and delegate responsibilities and authority to such committees, officers, and agents.

5.2 Qualification, Appointment and Election of Directors, Term.
5.2.1 Qualification.
Directors must be employees of a Charter Member. No Charter Member may have more than one (1) representative to the Board of Directors, unless necessary to ensure that the Board of Directors includes the minimum number of directors required under the provisions of Section 5.3. For purposes of these Bylaws, a Member and its Affiliates shall be deemed as one (1) Member.

5.2.2 Appointment.
The initial Board of Directors shall be appointed by the incorporator and shall consist of one representative to be appointed by each of the Founding Members. The initial Board of Directors will serve until the conclusion of elections for the ongoing Board of Directors, which elections shall be held no later than six months from the first meeting of the initial Board of Directors. Charter Members with representatives on the Board of Directors, by providing written notice to the Board of Directors, may replace an individual appointed by that Charter Member to the Board of Directors at any time with another designated representative of the Charter Member.

5.2.3 Term.
The term of Directors of the ongoing Board of Directors shall be two (2) years.

5.3 Composition and Size of the Board of Directors.
The Board of Directors shall consist of a minimum of three (3) Directors and a maximum of seven (7) Directors. The maximum number may be increased upon an affirmative vote of a Supermajority of all the Directors in office.

5.4 Board of Director Elections.

5.4.1 Time of Election.
The Secretary or Executive Director will initiate nominations by providing notice to the Charter Members (“Initiation of Nominations”): (i) within thirty (30) days prior to the expiration of the term of the initial Board of Directors, (ii) within thirty (30) days prior to the expiration of the terms of the ongoing Board of Directors, and/or (iii) when a Board of Directors position becomes open.

5.4.2 Election Process.

(1) A Charter Member that desires to nominate either itself or another Charter Member for a Board of Director position, must do so by providing written notice naming the Charter Member and the individual nominated to represent such Charter Member to the Executive Director not later than fourteen (14) days following the initiation of nominations. Individuals identified in such notice shall be employees of the Charter Member.
(2) At such time as all nominees are known, the Executive Director shall provide the Charter Members and Contributor Members with a written slate containing the names of all nominees (“Nominee Slate”).

(3) Voting shall be exclusively by written ballot (which may be submitted by email) within fourteen (14) days of the date that the Executive Director provides Members with the Nominee Slate. Members may cast one (1) vote per open Board of Director Position, and may vote for as many nominees as the number of Board of Director positions to be filled. For avoidance of doubt, no more than one (1) vote may be cast for a particular nominee. The nominees receiving the highest number of votes shall be elected, up to the number of Board of Directors seats to be filled.

(4) In the event of a tie between two (2) or more Board of Director nominees, the Board of Directors shall determine the winner via majority vote of all the Board of Directors Members currently in office.

5.5 Vacancies; Resignations.
Vacancies on the Board of Directors shall exist: (1) whenever an individual serving as a Charter Member’s representative to the Board of Directors resigns from the Board of Directors; (2) whenever a Director resigns from or is terminated from employment by the Charter Member organization employing the Director at the time of the Director’s appointment; (3) whenever a Charter Member organization terminates its membership in the Corporation; (4) wherever a Director is removed from the Board of Directors in accordance with these Bylaws; (5) upon the death or incapacity of a Director; and (6) the expiration of the Director’s term.
Any Director may resign effective upon giving written notice to the President, the Secretary, Executive Director, or the Board of Directors.
The Charter Member employing the resigning, terminated, deceased, incapacitated, or removed Director shall replace that Director with another employee or representative by providing the Secretary or Executive Director with written notice of the same within thirty (30) days after the effective date of the Director’s resignation, expiration, termination, death, incapacity, or removal. The Board of Directors may not otherwise fill a vacancy existing under this section. Except as otherwise herein provided, a Director shall be ineligible to serve as a Director and such person’s term of office shall immediately cease if the Director’s employment with the Charter Member is for any reason terminated. A person appointed to fill a vacancy on the Board of Directors shall hold office until his or her death, resignation, removal from office, his or her employment with the Charter Member is terminated, or the Charter Member employing such Director terminates its membership or its membership is terminated in accordance with these Bylaws.
In the event that two (2) or more Charter Member organizations each with an employee or representative on the Board are merged or such a Charter Member organization is acquired by another such Charter Member organization, the surviving or acquiring Charter Member shall designate which of the Directors is to remain on the Board and the other Director will resign and be effectively removed from the Board immediately upon the closing of the acquisition or merger.

5.6 Chairman of the Board
The Chairman of the Board presides at all meetings of the Board of Directors, and is a voting member of the Board. The Vice Chairman is a voting member of the Board and acts in the capacity of the Chairman in the absence of the Chairman. The Chairman shall also serve as President of the Corporation and have such other powers and duties as may be designated from time to time by the Board of Directors. The Vice Chairman shall also serve as the Vice President of the Corporation and have such powers and duties as may be designated from time to time by the Board of Directors. The Board of Directors (by a vote of at least two-thirds (2/3) of all the Directors in office) shall elect the Chairman and the Vice Chairman (and any replacement) for a period of one (1) year commencing with the first meeting of the Board of Directors. Harmonic shall appoint a representative to serve as Chairman of the initial Board of Directors meeting where the Chairman and Vice Chairman elections shall be held. Except as set forth elsewhere in these Bylaws, any removal of a Member’s Director from the Chairman position does not limit the Director’s rights as a member of the Board of Directors.

5.7 Meetings

5.7.1 Place of Meetings.
Board of Directors’ meetings shall be held at places and times as may be agreed to by a majority of the Board of Directors. Meetings may be held in person, by audio, or videoconferencing techniques, or any other means or combinations thereof permitted under the DGCL.

5.7.2 Regular Meetings.
Regular Meetings of the Board of Directors shall be held prior to the Annual Meeting of the Members.

5.7.3 Special Meetings.
Special Meetings of the Board of Directors may be called by any one-third (1/3) of the then current Board of Directors, or, if different, by the persons specifically authorized under the DGCL to call Special Meetings of the Board of Directors.

5.7.4 Notice of Meetings.
Unless otherwise provided by the Certificate of Incorporation, these Bylaws, or provisions of law, the following provisions shall govern the giving of notice for meetings of the Board of Directors:

(1) Regular Meetings. The Executive Director of the Corporation shall give at least seven (7) days prior notice to each Director.

(2) Special Meetings. The Executive Director of the Corporation shall give at least ten (10) days prior notice to each Director.

The primary means for the provision of notice shall be via electronic mail to each Director at the electronic mail address as it appears on the records of the Corporation, provided that the Director to be contacted shall acknowledge personal receipt of the electronic message by a return electronic message or telephone call within three (3) business days of the first notification. If notification is provided by mail (including the U.S. Postal Service, express courier services and the like), such notice shall be deemed to be delivered when deposited in the mail addressed to the Director at his or her address as it appears on the records of the Corporation, with postage prepaid. Personal notification may also include notification by telephone, facsimile, or other electronic means; provided, however, such notification shall be subject to any and all acknowledgment requirements as may be set forth in the DGCL, as it may be amended from time to time.

5.7.5 Consent to Meetings.
The transactions of the Board of Directors at any meeting however called and noticed or wherever held, shall be as valid as though done at a meeting duly held after call and notice if a quorum is present and if either before or after the meeting each Director not present (i) signs a written waiver of notice, or (ii) signs a consent to the holding of such meeting, or (iii) approves the minutes thereof. Each Director who attends the meeting without protesting, prior thereto or at its commencement shall be deemed conclusively to have consented to the holding of the meeting and to have waived the lack of notice to such Director. All such waivers, consents, or approvals shall be filed with the corporate records and made a part of the minutes of the meeting.

5.7.6 Action without Meeting.
Any action required or permitted to be taken by the Board of Directors under any provision of the DGCL may be taken without a meeting if all members of the Board shall consent in writing to such action. Such written consent or consents shall be filed with the minutes of the proceedings of the Board. Such action by written consent shall have the same force and effect as a unanimous vote of such Directors.

5.7.7 Telephone or Videoconference Meetings.
Directors may participate in a meeting through use of conference telephone and/or videoconference or similar communications equipment, so long as all Directors and
others participating in such meeting can hear and identify one another. Participation in a meeting through use of telephone or similar communications equipment shall constitute presence in person at such meeting.

5.7.8 Quorum and Action of Board of Directors.

Two thirds (2/3) of all the Directors in office shall be necessary to constitute a quorum for the transaction of business, except to adjourn as hereinafter provided. The table below sets forth categories of acts or decisions and the number of affirmative votes required for the decision to be regarded as an act of the Board of Directors.

<table>
<thead>
<tr>
<th>Matter to be Voted On</th>
<th>Number of Affirmative Votes Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Business Matters</td>
<td>Majority vote of a quorum of the Board of Directors</td>
</tr>
<tr>
<td>Establishment of Work Groups, Approval of a Work Group’s Charter, and Appointment of Work Group Chairpersons</td>
<td>Two thirds majority vote of a quorum of the Board of Directors</td>
</tr>
<tr>
<td>Election of Officers</td>
<td>Majority vote of a quorum of the Board of Directors</td>
</tr>
<tr>
<td>Removal of Officers</td>
<td>Two thirds majority vote a quorum of the Board of Directors</td>
</tr>
<tr>
<td>Amendment to Certificate of Incorporation, Bylaws, Membership Agreements or IPR Policy</td>
<td>Two thirds majority vote of all Directors in office</td>
</tr>
<tr>
<td>Changing the Corporation Purpose</td>
<td>Two thirds majority vote of all Directors in office</td>
</tr>
<tr>
<td>Approving 1) Final Deliverables and 2) public Sample Code releases</td>
<td>Two thirds majority vote of all Directors in office</td>
</tr>
<tr>
<td>Notwithstanding Section 5.12, Dissolution or Merger of the Corporation, or Transfer of All or Substantially All of the Corporation’s Assets to Another Industry Group or Standards Body</td>
<td>Two thirds majority vote of all Directors in office</td>
</tr>
<tr>
<td>Issue general Corporation press releases</td>
<td>Two thirds majority vote of a quorum of the Board of Directors</td>
</tr>
<tr>
<td>Addition or Removal of Additional Classes of Members.</td>
<td>Two thirds majority vote of all Directors in office</td>
</tr>
<tr>
<td>Increasing the maximum number of</td>
<td>Supermajority of all Directors in office</td>
</tr>
<tr>
<td>Matter to be Voted On</td>
<td>Number of Affirmative Votes Required</td>
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<td>--------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Directors</td>
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</tr>
<tr>
<td>Wind down the Corporation on or after the fifth Annual Meeting of the Corporation</td>
<td>Supermajority of all Directors in office</td>
</tr>
<tr>
<td>Approve applicant's membership as a Charter Member</td>
<td>Two thirds majority vote of all Directors in office</td>
</tr>
<tr>
<td>Amend annual dues payable by each class of Member</td>
<td>Majority vote of all Directors in office</td>
</tr>
<tr>
<td>Approve assignment of Member Agreement</td>
<td>Two thirds majority vote of all Directors in office</td>
</tr>
<tr>
<td>Adopt a Trademark</td>
<td>Unanimous vote of all Directors in office</td>
</tr>
<tr>
<td>Terminate membership for violation of policies or duties</td>
<td>Unanimous vote of all Disinterested Directors after majority vote of</td>
</tr>
<tr>
<td></td>
<td>Disinterested Directors determines violation can be cured</td>
</tr>
<tr>
<td>Determine winner in event of a tie between two nominees</td>
<td>Majority vote of all Directors in office</td>
</tr>
<tr>
<td>Election of Chairman</td>
<td>Two thirds majority vote of all Directors in office</td>
</tr>
<tr>
<td>Approve self-dealing transaction</td>
<td>Two thirds majority vote of all disinterested Directors, even though less</td>
</tr>
<tr>
<td></td>
<td>than a quorum</td>
</tr>
<tr>
<td>Approve benefits, rights, privileges, restrictions, and conditions of Members</td>
<td>Supermajority of all Directors in office</td>
</tr>
<tr>
<td>Determine the Board Fee, if any</td>
<td>Supermajority of all Directors in office</td>
</tr>
</tbody>
</table>

5.7.9 Adjournment.
A majority of the Directors present, whether or not a quorum is present, may adjourn any Board of Directors’ meeting to meet again at another time or place. In the event a meeting of the Board of Directors is adjourned for more than twenty-four (24) hours, notice of any adjournment to another time or place shall be given prior to the time set for the rescheduled meeting to the Directors who were not present at the time of the adjournment.

5.7.10 Conduct of Meetings.
Meetings of the Board of Directors shall be presided over by a Chairman of the Board of Directors, or in his or her absence, by the Vice Chairman. In the case of the absence of both the Chairman and Vice Chairman, an acting Chairman shall be
chosen by a majority of the Directors present at that meeting. The Secretary of the Corporation shall act as secretary of all meetings of the Board of Directors, provided that, in his or her absence, the presiding officer shall appoint another person to act as Secretary of the Meeting. Meetings shall be governed by such procedures as may be approved from time to time by the Board of Directors, insofar as such rules are not inconsistent with or in conflict with the Certificate of Incorporation, these Bylaws, or with provisions of law. Where practical, the Board of Directors will model its procedures and actions on Robert's Rules of Order, although the Board shall not be required to adopt Robert's Rules of Order in its entirety or any part thereof.

5.8 Compensation.
Directors shall serve without compensation by the Corporation.

5.9 Standard of Conduct.
Subject to the provisions of the Corporation's Certificate of Incorporation, a Director shall perform the duties of a Director, including duties as a member of any committee or Work Group of the Board of Directors upon which the Director may serve, in good faith, in a manner such Director believes to be in the best interests of this Corporation and with such care, including reasonable inquiry, as an ordinarily prudent person in a like position would use under similar circumstances. In performing the duties of a Director, a Director shall be entitled to rely on information, opinions, reports or statements, including financial statements and other financial data, in each case prepared or presented by:
(1) One or more officers or employees of this Corporation whom the Director believes to be reliable and competent in the matters presented; or
(2) Legal counsel, independent accountants or other professionals as to matters which the Director believes to be within such person's professional or expert competence; or
(3) A committee of the Board of Directors upon which the Director does not serve, as to matters within the committee's designated authority, which committee the Director believes to merit confidence; provided, that in any such case, the Director acts in good faith, after reasonable inquiry when the need therefore is indicated by the circumstances and without knowledge that would cause such reliance to be unwarranted.

5.10 Self-Dealing Transactions.
As used in this section, a "self-dealing contract" is any contract or transaction (i) between this Corporation and one or more of its Directors, or between this Corporation and any corporation, firm or association in which one or more of the Directors or, to the best of each respective Director's knowledge at the time the contract or transaction is proposed, or thereafter, one or more members is employed or has a material financial interest, or (ii) between this Corporation and a
corporation, firm or association of which one or more of its directors or employees or consultants are Directors of this Corporation (collectively, "Interested Director(s)"). Pursuant to the DGCL, no self-dealing contract shall be void or voidable because such Interested Director(s) or corporation, firm or association is a party or because such Interested Director(s) are present at the meeting of the Board of Directors or committee which authorizes, approves, or ratifies the self-dealing contract, if:

(1) Board of Directors or Committee Approval. The material facts as to the Interested Director’s relationship or interest and as to the self-dealing contract are disclosed or are known to the Board of Directors or committee, and the Board of Directors or committee in good faith authorizes the self-dealing contract by the affirmative votes of two-thirds (2/3) of the disinterested Directors, even though the disinterested Directors be less than a quorum; or

(2) The self-dealing contract is fair as to the Corporation as of the time it is authorized, approved, or ratified, by the Board of Directors or committee thereof.

5.11 Advances for Expenses.
To the extent a Director or officer of the Corporation is a party to an action, suit or proceeding as a result of such Director or officer’s service to the Corporation, the Corporation shall pay for or reimburse the reasonable expenses incurred by such Director or officer in advance of final disposition of the action, suit or proceeding to the fullest extent permitted by the DGCL, as it exists on the date hereof or is hereafter amended.

5.12 Board of Director Vote on Continuation of Corporation.
Commencing at the time of the fourth Annual Meeting of the Board of Directors, and occurring at each Annual Meeting of the Board of Directors thereafter, the Board of Directors shall vote on whether the Corporation shall be continued for another year. Unless a Supermajority of the Board of Directors votes against continuation, the Corporation shall continue for another year. Should a Supermajority or more of the Board of Director vote against continuation, then the Corporation shall take all steps necessary to dissolve as required under the laws of the State of Delaware.

6. WORK GROUPS

6.1 Work Groups.
From time to time, the Board of Directors will approve formation of one or more work groups (“Work Groups”) to carry out the development of Draft Deliverables. Such Work Groups will operate in accordance with procedures (“Work Group Procedures”) adopted and amended, from time to time, by the Board of Directors.

6.2 Formation.
Any Director may propose for vote, at a duly called meeting of the Board of Directors, the establishment of one (1) or more Work Groups to carry out the work of the Corporation as assigned by the Board of Directors. Such proposal shall include the proposed charter of such Work Group. The Board of Directors shall, with the affirmative vote of at least two thirds (2/3) of a quorum of the Board of Directors, (i) approve the formation of each Work Group, (ii) approve the charter of such Work Group, and (iii) appoint the initial and any replacement chairman of such Work Group, which chairman shall serve for a term of one (1) year, after which time the Board of Directors must either replace or reappoint said chairman. All output of a Work Group, including but not limited to Draft Guidelines, and modifications thereto, shall be subject to review and approval of the Board of Directors. It is contemplated that, at a minimum, the following Work Groups will be chartered: Technical Work Group, Promotion Work Group, Liaison Work Group and the Membership Work Group.

6.3 Composition of Work Groups.
Participation on any Work Group shall be open to all Members, but Work Groups shall only be chaired by Charter or Contributor Members.

6.4 Record of Activities.
Each Work Group shall elect a secretary or other person to document and record the minutes of Work Group meetings.

6.5 Meetings.
Work Groups shall hold regular meetings on a schedule determined by the Work Group Procedures. The noticing of meetings of the Work Group and the governance thereof shall be subject to the Work Group Procedures. Where practical, Robert’s Rules of Order shall be used as a guide in the conduct of meetings.

6.6 Removal from Work Groups.
The then-current Work Group Procedures shall govern the removal of any member of a Work Group.

6.7 Process for Approval of a Draft Guideline or Draft Test Material.

6.7.1 One or more technical Work Groups shall have the responsibility for drafting and developing Draft Guidelines, Draft Test Materials, Draft Informational Documents and Sample Code. When the chairman of a technical Work Group determines, in accordance with procedures to be developed by the Board of Directors, that a Draft Guideline, Draft Test Material, Draft Informational Document or Sample Code is sufficiently substantial and defined so as to provide for meaningful review by the members of the Work Group, he or she may initiate a
Work Group review. Work Group Procedures shall define the voting process and the voting threshold required to enable the chairman of the technical Work Group to direct the Executive Director to initiate a review period for all Members (“Review Period”). The duration of the Review Period shall be not less than thirty (30) days.

6.7.2 Upon completion of the Review Period, the Board of Directors will vote to approve the Draft Guideline, Draft Test Material, Sample Code or other Deliverable in accordance with these Bylaws. If the Board of Directors approves such Draft Guideline, Draft Test Materials, Sample Code or other Deliverable, such Draft Guideline, Draft Test Materials, Sample Code or other Deliverable shall be a Final Guideline, Final Test Materials or other Final Delivery, respectively, of the Corporation. In the event that the Board of Directors fails to approve such Draft Guideline, Draft Test Materials, Sample Code or other Deliverable, such Draft Guideline, Draft Test Materials, Sample Code or other Deliverable shall be returned to the technical Work Group.

7. OFFICERS

7.1 Officers.
The required officers of the Corporation shall be a President, Treasurer, and Secretary. The Corporation may have a Vice President and such other officers with such titles as may be determined from time to time by the Board of Directors. All officers shall be an employee or representative of a Charter Member. One person may hold two or more offices except no single individual may authorize an act of the Corporation that requires the approval of two or more officers.

7.2 Election.
The officers of this Corporation, except for the President who shall be the Chairman of the Board appointed in the manner set forth in Section 5.6 above, and such officers as may be appointed in accordance with the provisions of Section 7.3 or Section 7.4, shall be elected by the Board of Directors in accordance with this Section 7, and each officer shall hold his or her office for a term of one (1) year, or until he or she shall resign or shall be removed or his or her successor shall be elected and qualified.

7.3 Removal and Resignation.

7.3.1 Removal.
Any officer may be removed, either with or without cause, by the Board of Directors at any regular or special meeting (subject to the rights, if any, of an officer under any contract of employment).
7.3.2 Resignation.
Any officer may resign at any time by giving written notice to the Board of Directors, or to any officer of this Corporation. Any such resignation shall take effect at the date of the receipt of such notice or at any later time specified therein, and, unless otherwise specified therein, the acceptance of such resignation shall not be necessary to make it effective. Such resignation shall not prejudice the rights of the Corporation under any contract to which the officer is a party.

7.4 Vacancies.
A vacancy in any officer position because of death, resignation, removal, disqualification, or any other cause shall be filled in the manner prescribed in the Bylaws for regular appointments to such officer position.

7.5 President.
The President shall serve as the Chairman of the Board of Directors and the Chief Executive Officer of this Corporation. Subject to the control of the Board of Directors, the President shall have general supervision, direction, and control of the business and affairs of this Corporation. The President shall have such other powers and duties as may be designated from time to time by the Board of Directors. The President may delegate such duties to the Executive Director provided that the President appropriately supervises the Executive Director in his or her exercise of such duties.

7.6 Vice President.
The Corporation shall have one Vice President and such officer will assume all the powers and duties of the President when the President is absent or temporarily incapacitated.

7.7 Treasurer.
The Treasurer shall oversee the financial and accounting matters of this Corporation with respect to the receipt, deposit, and expenditure of funds. The Treasurer shall have such other powers and duties as may be designated from time to time by the Board of Directors. The Treasurer may delegate such duties to the Executive Director provided that the Treasurer appropriately supervises the Executive Director in his or her exercise of such duties.

7.8 Secretary.
The Secretary shall keep a full and complete record of the proceedings of the Board of Directors, shall keep the seal of this Corporation and affix it to such papers and instruments as may be required in the regular course of business, shall make service of such notices as may be necessary or proper, shall supervise the keeping of the records of this Corporation, and shall deliver the annual Statement required in these Bylaws to the Directors. The Secretary shall have such other powers and duties as
may be designated from time to time by the Board of Directors. The Secretary may delegate such duties to the Executive Director provided that the Secretary appropriately supervises the Executive Director in his or her exercise of such duties.

7.9 Executive Director.
The Executive Director is not an Officer of the Corporation and does not serve as a voting representative of the Board of Directors. Upon approval by the Board of Directors, the Executive Director may attend any Board of Directors, committee, or Work Group meeting. The Officers and the Board of Directors may delegate any of their respective duties to the Executive Director, including but not limited to:

7.9.1 scheduling and setting up meetings;

7.9.2 facilitating communication between Members, including providing timely notices of meetings;

7.9.3 acting as the liaison to other consortia or associations with which the Corporation may choose to associate as instructed by the Board of Directors;

7.9.4 providing Members with timely minutes, summaries and other reports with respect to the activities of the Corporation as may be prepared by the Secretary or the Executive Director;

7.9.5 receiving and processing Member Agreements, creating and updating lists of Members, and executing Member Agreements on behalf of the Corporation;

7.9.6 archiving and holding Draft Guidelines and Final Guidelines and Draft Test Materials and Final Test Materials; and

7.9.7 performing all duties incident to the office of Executive Director and such other duties as may be required by law, by the Certificate of Incorporation, or by these Bylaws, or which may be assigned to him or her from time to time by the Board of Directors.

The Executive Director may engage third parties to undertake the activities described in Section 7.9, provided that the Executive Director enters into appropriate contracts protective of the Corporation, and ensures compliance with terms and conditions of these Bylaws including confidentiality obligations. For clarity, the Executive Director shall not enter into any contract on behalf of the Corporation unless such contract has been approved by the Board of Directors.
and the Executive Director has been delegated the responsibility of executing such contract by the appropriate Officer or Board of Directors.

8. MISCELLANEOUS

8.1 Fiscal Year.
The fiscal year of this Corporation shall start on January 1 and end on December 31 of each year.

8.2 Inspection of Corporate Records.
The books of account and minutes of the proceedings of the Board of Directors, and of any committees of the Board of Directors, shall be open to inspection at the principal office of this Corporation by each Member at any reasonable time upon the written demand of any Member. Such inspection may be made in person or by an agent or attorney, and shall include the right to make photocopies and extracts at the requesting Member’s expense.

8.3 Checks, Drafts, Etc.
All checks, drafts or other orders for payment of money, notes, or other evidences of indebtedness issued in the name of or payable to this Corporation and any and all securities owned by or held by this Corporation requiring signature for transfer shall be signed or endorsed by such person or persons and in such manner as from time to time shall be determined by the Board of Directors.

8.4 Execution of Contracts.
The Board of Directors may authorize any officer, employee, or agent to enter into any contract or execute any contract or execute any instrument in the name of and on behalf of this Corporation and such authority may be general or confined to specific instances. Unless so authorized by the Board of Directors, no officer, agent, or employee shall have any power or authority to bind this Corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or in any amount.

8.5 Indemnification.

8.5.1 Coverage and Authorization.

(a) For the purposes of this Section 8.5, “Agent” means any person who is or was a director or officer of the Corporation, or is or was serving at the request of the Corporation; “Proceeding” means any threatened, pending, or completed action or proceeding, whether civil, criminal, administrative, or investigative; and “Expenses”
includes without limitation attorneys’ fees and any expenses of establishing a right to indemnification.

(b) The Corporation shall, to the fullest extent permitted by law, indemnify any person who was or is a party or is threatened to be made a party to any Proceeding by reason of the fact that such person is or was an Agent of the Corporation, against Expenses, judgments, fines, settlements, and other amounts actually and reasonably incurred in connection with such Proceeding.

(c) In the event entitlement to indemnification is required by law to be based upon a determination by the Board of Directors or the Members that the Agent has met the standards of conduct prescribed by law, the Agent may select which body shall, or that both bodies shall, make such determination, and such body shall meet and shall reach a determination on the issue within a reasonable period of time after request for such body to meet is received by the Corporation from the Agent.

8.5.2 Exclusivity and Survival.
The indemnification provided by these Bylaws shall not be deemed exclusive of any other rights to which those indemnified may be entitled under any contract, agreement, vote of disinterested Directors or otherwise, both as to action in his official capacity and as to action in another capacity while holding such office, and shall continue as to a person who has ceased to be an Agent and shall inure to the benefit of the heirs, executors, and administrators of such a person.

8.5.3 Insurance.
The Corporation will purchase and maintain appropriate insurance policies as the Board shall, in its discretion, approve, on behalf of any person who is or was an Agent of the Corporation, or is or was serving at the request of the corporation as a director, officer, employee, or agent of another corporation, partnership, joint venture, trust, or other enterprise.

8.5.4 Expenses.
Expenses incurred in defending a Proceeding shall be paid by the Corporation in advance of the final disposition of such Proceeding, as authorized by the Board of Directors in the specific case, upon receipt of an undertaking by or on behalf of the Agent to repay such amount, unless it shall ultimately be determined that he or she is entitled to be indemnified by the Corporation as authorized in this Section.

8.6 Corporate Loans, Guarantees and Advances.
This Corporation shall not make any advances or make any loan of money or property to or guarantee the obligation of any Director or officer, except as is expressly allowed under the DGCL.
8.7 Public Inspection and Disclosure.
The Corporation shall have available for public inspection at its principal office a copy of its three (3) most recent annual exempt organization information returns and a copy of its application for recognition of exemption and determination letter. In addition, in the event that the Corporation provides services or information to the public for a fee, and such services or information are available from the federal government free of charge or for a nominal cost, such availability shall be conspicuously disclosed in an easily recognizable format in any solicitation or offer by the Corporation.

8.8 Political Activities.
The Corporation shall not make any political expenditure or lobbying expenditure, which will result in the loss of, or otherwise adversely affect, its status as a tax-exempt organization under the United States Internal Revenue Code.

8.9 Communication Policies.

8.9.1 Press Releases.
A Member may make a press or other public announcement regarding its activities as a Member of the Corporation which names the identities of any other Member subject to getting prior written consent from such other Member. The Corporation may make a press or other public announcement regarding any subject germane to its purposes and may identify a Member as a member of the Corporation, in the press release, public announcement or other Corporation materials and communications. Any other information about a Member in any such press or other public announcement will require the prior written consent of such Member.

8.9.2 Publication.
The Corporation covenants that any Final Deliverable will be published to all Members within thirty (30) days following adoption.

8.10 Compliance with Antitrust Laws.
Each of the Members of the Corporation is committed to fostering competition in the development of new products and services, and the Final Deliverables are intended to promote such competition. Each Member further acknowledges that it may compete with other Members in various lines of business and that it is therefore imperative that they and their representatives act in a manner which does not violate any applicable state, federal or international antitrust laws or regulations. Accordingly, each Member hereby assumes responsibility to provide appropriate legal counsel to its representatives acting on such Member’s behalf regarding the
importance of limiting the scope of their discussions to the topics that relate to the purposes of the Corporation, whether or not such discussions take place during formal meetings, informal gatherings, or otherwise. The Corporation will retain independent anti-trust counsel to assist in the preparation and application of appropriate anti-trust policies and procedures for the Corporation, which policies and procedures shall be approved by the Board.

8.11 Waiver of Warranties.
ALL DELIVERABLES OF THE CORPORATION, AND ANY INTELLECTUAL PROPERTY OF THE CORPORATION THEREIN ARE PROVIDED “AS IS,” AND WITHOUT ANY WARRANTY OF ANY KIND, INCLUDING WITHOUT LIMITATION, ANY EXPRESS OR IMPLIED WARRANTY OF NONINFRINGEMENT, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE.

8.12 Limitation of Liability.
IN NO EVENT SHALL THE CORPORATION BE LIABLE TO THE MEMBERS, OR ITS MEMBERS LIABLE TO THE CORPORATION, IN CONNECTION WITH THE CONTRACTUAL NATURE OF THESE BYLAWS OR ANY INTELLECTUAL PROPERTY RIGHTS AGREEMENTS OF THE CORPORATION, FOR INDIRECT, INCIDENTAL, CONSEQUENTIAL, RELIANCE OR SPECIAL DAMAGES, INCLUDING WITHOUT LIMITATION DAMAGES FOR LOST PROFITS, EVEN IF THE OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. EACH PARTY RELEASES THE OTHER PARTY AND ALL OF THE OTHER PARTY’S AFFILIATES, EMPLOYEES, AND AGENTS FROM ANY SUCH DAMAGES.

8.13 Mediation.
The parties agree to first submit any controversy or claim between any Member and the Corporation arising out of or relating to these Bylaws, or the breach thereof, to nonbinding mediation in Wilmington, Delaware by a mediator to be selected by the parties from a panel selected by the International Chamber of Commerce (“ICC”) ADR Dispute Resolutions Services. The parties agree to mediate in good faith over a minimum period of thirty (30) days. For clarity, this Section 8.13 does not apply to any controversy or claim arising from or relating to the IPR Policy.

9. EFFECTIVE DATE AND AMENDMENTS

9.1 Effective Date.
These Bylaws shall become effective immediately upon their adoption by the Board.

9.2 Amendments.
Except as otherwise set forth herein, these Bylaws and IPR Policy may be altered, amended, or repealed upon a Supermajority Vote of the Board. Notwithstanding the
foregoing, no alteration, amendment, or repeal of these Bylaws shall be effective until the thirty-first (31st) day after notice, which notice may be by electronic means.
9.3 Amendments Summary:

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
<th>Date Approved</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.3 Composition of Work Groups</td>
<td>Modified language to allow Associate members to participate in Work Groups.</td>
<td>Board approved 26 May 2016</td>
</tr>
<tr>
<td>6.3 Composition of Work Groups</td>
<td>Modified language to allow Contributor members to be a Chair of a Work Group.</td>
<td>Board approved 26 May 2016</td>
</tr>
<tr>
<td>8.9.1 Press Releases</td>
<td>Modified language to require prior written consent from a Member if that Member is mentioned in another Members press release or public announcement.</td>
<td>Board approved 25 August 2016</td>
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