BYLAWS

OF

LoRa Alliance, Inc. (the "Bylaws") A Delaware Nonprofit Non-Stock Corporation

Amendments approved by the Board of Directors on May 3, 2018

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ARTICLE I.

NAME AND OFFICES

Section 1.1 Name.

The name of this corporation is LoRa Alliance, Inc. (hereinafter referred to as the "Alliance"). LoRaTM, LoRa AllianceTM and LoRaWANTM are the exclusive trademarks of Semtech Corporation ("Semtech") and are used herein pursuant to a license between Semtech and the Alliance.

Section 1.2 Principal Office.

The principal office of the Alliance shall be located at 3855 SW 153rd Drive, Beaverton, Oregon, 97003, USA. The Board of Directors is hereby granted full power and authority to change said principal office from one location to another.

Section 1.3 Other Offices.

The Alliance may also have offices at such other places, within or without 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.

Section 1.4 Nonprofit Status.

The Alliance shall be a Delaware nonprofit corporation and is not empowered to and shall not engage directly or indirectly in any activity, including distribution of its assets upon dissolution to any private individual, that would invalidate its status as an organization exempt from federal income taxation under section 501(a) of the Internal Revenue Code of 1986, as amended (hereinafter referred to as the "Code"), by virtue of being an organization described in section 501(c) of the Code. All references to the Code contained herein are deemed to include corresponding provisions of any future United States Internal Revenue Law.

ARTICLE II. PURPOSE

The Alliance is a nonprofit non-stock corporation organized under the Delaware General Corporation Law for purposes including, but not limited to:

- Designing, publishing, and certifying industry protocols, which include but are not limited to systems interfaces and token standards, to permit connected devices to extend their range to a wide area telecommunications network;
- Creating one or more trademarks to be placed by Alliance members on their certified solutions as an indicator that a member's products and services comply with the LoRaWAN protocol specifications;
- Providing a neutral forum to facilitate collaboration among members of the Alliance and enable delivery of the solutions required;
- Driving the rapid adoption of Alliance-enabled solutions by developers and users of related products and services;

- Educating the enterprise, media, analyst and user communities on the value, benefits and applications for the Alliance's output;
- Maintaining relationships and liaisons with educational institutions, government research institutes, other technology consortia, and other third parties to enable their support and contribution to the work of the Alliance; and
- Fostering competition in the marketplace and observing all applicable antitrust laws and regulations.

ARTICLE III. DEFINITIONS

Section 3.1 "Affiliate"

"Affiliate" shall mean: a corporation, company or other entity that owns or controls a Member, or is owned or controlled by a Member or is under common control with a Member, but such corporation, company or other entity shall be deemed to be an Affiliate only so long as such ownership or control exists. For the purposes of this definition "own or controls" means owning or controlling, directly or indirectly, more than fifty percent (50%) of the outstanding shares or securities (representing the right to vote for the election of directors or other managing authority) or more than fifty percent (50%) of ownership interest representing the right to make the decisions for such corporation, company or other entity.

Section 3.2 "Adopter Member"

"Adopter Member" shall mean a Member without voting rights with the privileges defined in these Bylaws.

Section 3.3 "Board Committee"

"Board Committee" shall mean a committee of Directors created by the Board of Directors and delegated Board authority pursuant to Section 6.13.

Section 3.4 "Committee"

"Committee" shall mean a non-Board Committee created to perform general or special duties pertaining to the Alliance's management, activities, or affairs, pursuant to Article VIII.

Section 3.5 "Contributor Member"

"Contributor Member" shall mean a Member with voting rights in Committees and with the privileges defined in these Bylaws.

Section 3.6 "Deliverable"

"Deliverable" shall mean any recommendation submitted by a Committee to the Board of Directors for approval as a Deliverable (e.g., draft specifications, presentations, editorial material, graphics, etc.).

Section 3.7 "Director"

"Director" shall mean a Sponsor Member's representative to the Board of Directors, serving in accordance with Article VI.

Section 3.8 "Executive Director"

"Executive Director" shall mean an employee or contractor of the Alliance whose duties and responsibilities are set forth in Section 7.10. The Executive Director shall be an individual who is not a member of the Board of Directors.

Section 3.9 "Founding Sponsor Member"

"Founding Sponsor Member" shall mean a Member that: (i) was one of the initial companies that founded and defined the Alliance with the intent of becoming a Sponsor Member; and (ii) has the rights and privileges defined in these Bylaws.

Section 3.10 "Institutional Member"

"Institutional Member" shall mean a Member that is a nonprofit organization, an institution of higher learning, or university with the privileges defined in these Bylaws.

Section 3.11 "IPR Policy"

"IPR Policy" shall mean the policy entitled "LoRa Alliance Intellectual Property Rights Policy" as adopted by the Board of Directors, as it may be amended from time to time.

Section 3.12 "Member"

"Member" shall mean a Member in the Alliance. There shall be the following classes of Members: Adopter Members, Contributor Members, Institutional Members, Sponsor Members, and Founding Sponsor Members. As used in these Bylaws, "Member" shall not mean a "member" as that term is used in Section 215 of Title 8 of the General Corporation Law of the State of Delaware. The Sponsor Members shall be deemed to be the "members" of the Alliance for purposes of the Delaware General Corporation Law.

Section 3.13 "Membership Agreement"

"Membership Agreement" shall mean the Member Participation Agreement wherein a Member designates its desired Member level, as a Sponsor, Contributor, Institutional or Adopter Member, and which incorporates the other Organizational Documents such as the IPR Policy and these Bylaws.

Section 3.14 "Officer"

"Officer" shall mean an individual who has been elected to serve as an officer of the Alliance in accordance with Section 7.2.

Section 3.15 "Organizational Documents"

"Organizational Documents" shall mean the Alliance's Certificate of Incorporation, Bylaws, IPR Policy and any other policies, procedures or other documents or arrangements promulgated by the Board of Directors, as the same may be amended from time to time.

Section 3.16 "Promotional Materials"

"Promotional Materials" shall mean any market communication material such as flyers, presentations, banners, roll-ups, mugs, pens, cup holders, and editorials, submitted by a Committee to the Board of Directors for approval as Promotional Material.

Section 3.17 "Sponsor Member"

"Sponsor Member" shall mean a Member with voting rights in Committees, with the ability to designate one (1) Director to serve on the Board of Directors (to the extent permitted under Section 6.2) and with the privileges defined in these Bylaws.

ARTICLE IV. MEMBERS

All Members are required to abide by these Bylaws and to execute the Membership Agreement as a condition of becoming and remaining members of the Alliance. All voting and non-voting memberships in the Alliance are individually referred to herein as a "Membership" and collectively as "Memberships."

Section 4.1 Membership Qualifications.

The qualifications for Membership in the Alliance are as follows: (i) the applicant must be a business entity or other legal entity competent to be bound by these Bylaws and all other agreements and undertakings required for Membership in the Alliance as a Founding Sponsor Member, Sponsor Member, Contributor Member, Institutional Member, or Adopter Member, as applicable, or such other class approved by the Board of Directors; (ii) the applicant must be supportive of the Alliance's purposes, as acknowledged and agreed to in a Membership Agreement; (iii) the applicant must not otherwise be prohibited by treaty, law, or regulation from abiding in any material respect by the terms of these Bylaws or the other agreements and undertakings required for Membership in the Alliance; and (iv) the applicant must pay the then-current annual dues, fees and assessments applicable to its Membership level, upon admission as a Member and remain current on such dues, fees and assessments thereafter.

Except for the foregoing requirements and other express requirements set forth in these Bylaws, there shall be no other requirements for admission of any Member to the Alliance.

Section 4.2 Classes of Membership.

The Alliance will have the following classes of Membership: Adopter Members, Contributor Members, Institutional Members, Sponsor Members, and Founding Sponsor Members. Except as expressly provided in or authorized by the Membership Agreement, the Certificate of Incorporation, these Bylaws, the IPR Policy or provisions of law, Members shall have the rights, privileges, restrictions, and conditions established by the Board of Directors in accordance with these Bylaws.

Section 4.3 Sponsor Members.

All Sponsor Members must execute a Membership Agreement, in the form approved by the Board of Directors, and pay the dues, fees and assessments established for Sponsor Members. Following the execution of a Membership Agreement and for so long as such agreement shall remain in effect, each Sponsor Member shall be entitled to all rights and bound by all obligations stated in the Organizational Documents. In addition, the Sponsor Members shall each have the following rights, provided that rights of approval through Board action are collective rights in accordance with the terms of these Bylaws:

- a) Eligibility for a seat on the Board of Directors of the Alliance to the extent permitted under Section 6.2;
- b) The right to submit Deliverables for final approval by the Board of Directors;

- c) The right to initiate, participate in, vote in and chair Committees;
- d) The right to contribute to draft Deliverables and access final Deliverables;
- e) The right to certify compliant products of the Alliance;
- f) The right to participate in press articles and interviews regarding the Alliance;
- g) The right to use Alliance and/or certification logo on certified products;
- h) The right to access any Members only website;
- i) The right to participate in general or annual meetings of Members; and
- j) The right to receive Alliance communications.

In addition to the foregoing, the Board of Directors, in accordance with Section 6.9.7, may from time to time approve other benefits to which all Sponsor Members may be entitled.

Section 4.4 Admission of Founding Sponsor Members.

The Founding Sponsor Members may be admitted by the incorporator prior to the first organizational meeting of the Alliance. The Founding Sponsor Members each shall have a seat on the Board of Directors in perpetuity so long as such Founding Sponsor Member remains in good standing and provided that the Founding Sponsor Member does not lose its right to a seat on the Board of Directors in accordance with Section 6.8.

Section 4.5 Contributor Members.

All Contributor Members must execute a Membership Agreement, in the form approved by the Board of Directors, and pay the dues, fees and assessments established for Contributor Members. Following the execution of a Membership Agreement and for so long as such agreement shall remain in effect, each Contributor Member shall be entitled to all rights and bound by all obligations stated in the Organizational Documents. In addition, the Contributor Members shall each have the following rights:

- a) The right to initiate, participate in, vote in and chair Committees;
- b) The right to contribute to draft Deliverables and access final Deliverables;
- c) The right to certify compliant products;
- d) The right to participate in press articles and interviews regarding the Alliance;
- e) The right to use Alliance and/or certification logo on certified products;
- f) The right to access any Members only website;
- g) The right to participate in general or annual meetings of Members; and
- h) The right to receive Alliance communications.

In addition to the foregoing, the Board of Directors, in accordance with Section 6.9.7, may from time to time approve other benefits to which all Contributor Members may be entitled.

Section 4.6 Institutional Members.

All Institutional Members must execute a Membership Agreement, in the form approved by the Board of Directors, and pay the dues, fees and assessments established for Institutional Members. Following the execution of a Membership Agreement and approval by the Board of Directors, and for so long as such agreement shall remain in effect, each Institutional Member shall be entitled to all rights and bound by all obligations stated in the Organizational Documents. In addition, the Institutional Members shall each have the following rights:

- a) The right to participate in Committees;
- b) The right to contribute to draft Deliverables and access final Deliverables;
- d) The right to access any Members only website;
- e) The right to participate in general or annual meetings of Members; and
- f) The right to receive Alliance communications.

In addition to the foregoing, the Board of Directors, in accordance with Section 6.9.7, may from time to time approve other benefits to which all Institutional Members may be entitled.

Section 4.7 Adopter Members.

The Alliance may, pursuant to resolutions adopted by the Board of Directors, have one or more classes of Adopter Members. Such classes of Adopter Members may be referred to by any other designation given to them by the Board of Directors.

All Adopter Members must execute a Membership Agreement, in a form approved by the Board of Directors, and pay the dues, fees and assessments established for Adopter Members. Following execution of a Membership Agreement and for so long as such agreement shall remain in effect, all Adopter Members shall be entitled to all rights and bound by all obligations stated in the Organizational Documents. In addition, the Adopter Members shall each have the following rights:

- a) The right to certify compliant products;
- b) The right to participate in press articles and interviews regarding the Alliance;
- c) The right to use Alliance and/or certification logo on certified products;
- d) The right to access any Members only website;
- e) The right to participate in general or annual meetings of Members; and
- f) The right to receive Alliance communications.

Adopter Members shall not be entitled to any voting rights with respect to the business or proceedings of the Alliance, including without limitation, any matters relating to the adoption of a Deliverable or any other matters presented to the Alliance and/or the Sponsor Members for voting or election.

Section 4.8 Number of Members.

There is no limit on the number of Sponsor Members, Contributor Members, Institutional Members, or Adopter Members the Alliance may admit.

Section 4.9 Dues, Fees and Assessments.

The annual dues, fees and assessments payable to the Alliance by Members shall be established and may be changed from time to time, by class and on a prospective basis, by the Board of Directors in accordance with these Bylaws. Initial dues, fees and assessments shall be due and payable upon execution of a Membership Agreement according to terms defined in the Membership Agreement. In addition to the termination provisions of Section 4.14.1, any Member that is delinquent in the payment of any dues, fees or assessments shall be deemed suspended upon written notice from the Alliance until all delinquent dues, fees and assessments are paid.

Section 4.10 Member Roll.

The Alliance shall keep a 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 Alliance, receive all correspondence, notices and information, distribute such correspondence, notices and information within his or her organization, and in the case of Sponsor Members, vote on all issues submitted to a vote of the Sponsor 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 Alliance's principal office. Membership in the Alliance is a matter of public record; however, Membership lists will not be sold or otherwise be made available to third parties. The Alliance will ensure compliance with all applicable data privacy regulations with respect to maintaining the roll.

The Alliance shall use addresses and other contact information provided by Members on their Membership Agreements. If the address or other contact information of a Member changes, it shall be the responsibility of the Member to provide the Alliance with updated information.

Section 4.11 Non-liability of Members.

No Member of the Alliance, as such, shall be individually liable for the debts, liabilities, or obligations of the Alliance.

The Alliance may levy dues, fees or assessments upon its Members, but a Member upon receiving notice of any such dues, fees or assessments may avoid liability therefor by resigning from Membership within ninety (90) days of such notification, except where the Member is, by contract or otherwise, liable for such dues, fees or assessments. No provision of the Certificate of Incorporation or Bylaws authorizing such dues, fees or assessments shall, of itself, create such liability.

Section 4.12 Transferability of Membership.

Except to Affiliates, a Member shall not be permitted to assign its Membership Agreement without prior written approval of the Alliance and any purported assignment without such written approval shall be null and void *ab initio*. For purposes of this Section 4.11, an "assignment" shall be deemed to include any transfer by operation of law, such as to a successor in interest in connection with a merger, unless the Member involved in such transfer is the surviving entity following such transfer. Any assignment or

purported assignment must be reported immediately in writing to the Executive Director and the Secretary of the Alliance.

Section 4.13 Transfers from Membership Classes.

In the event that a Member decides to transfer from one membership class to another and complies with the admission criteria for the new membership class provided by the Alliance, such Member's previous membership class will be deemed terminated and a new membership will be deemed to be created in the new membership class, upon written notice filed with the Secretary of the Alliance and the satisfaction of the requirements of the new membership class.

Section 4.14 Termination of Membership.

The Membership of a Member shall terminate upon the occurrence of any of the following events:

Section 4.14.1 Failure to Renew Membership.

Upon a failure to initiate or renew membership by paying any required dues, fees and assessments on or before their due date, such termination to be effective thirty (30) days after a written notification of delinquency is given personally or mailed to such Member by the Alliance. A Member may avoid such termination by paying the amount of delinquent dues, fees and assessments within the thirty (30) day period following the Member's receipt of the written notification of delinquency from the Alliance.

Section 4.14.2 Resignation.

Upon written notice from the Member of its resignation; for clarity, the effective date of resignation is the date such notice is received by the Secretary or Executive Director of the Alliance.

Section 4.14.3 Violation of Policies or Duties of Membership.

A Sponsor Member may be expelled from the Alliance if the Disinterested Directors (as defined below) determine in accordance with Section 6.9.7, 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 Membership Agreement, or other policies and procedures duly approved by the Board of Directors, including the requirements for Membership as stated in Section 4.1, and failed to cure such violation.

A Contributor Member, Institutional Member or an Adopter Member may be expelled from the Alliance if the Directors determine in accordance with Section 6.9.7, after affording the Contributor Member, Institutional Member or Adopter Member in question the right to be heard on the issue, that such Member has violated any material provision of these Bylaws, the Membership Agreement, or other policies and procedures duly approved by the Board of Directors, including the requirements for Membership as stated in Section 4.1, and failed to cure such violation.

In the case of removal of a Sponsor Member a "Disinterested Director" is a Director who is not the Designated Director of the Member whose Membership is the subject of the vote for termination.

Section 4.14.4 Member Dissolution, Acquisition or Merger.

A Member's Membership shall automatically and without requirement of action by the Alliance terminate in the event that a Member (i) merges with a non-Member (unless the Member is the surviving entity following such merger), (ii) is acquired by a non-Member, and such Member is dissolved or otherwise ceases to exist as a separate entity as a result of or following the merger or acquisition, or (iii) for any other reason such Member dissolves. In the event that two (2) or more Member organizations are merged or a Member organization is acquired by another Member organization, the resulting entity shall have only one (1) Membership. Members must notify the Alliance as to which party will continue as a Member within five (5) days of the acquisition or merger.

Section 4.15 Rights of Members.

Except as otherwise provided in these Bylaws or any other agreement or document of the Alliance, all rights of a particular Member in the Alliance shall cease on termination of the applicable Membership Agreement. No Member shall receive any refund of dues, fees or assessments already paid for the current payment period upon termination.

Section 4.16 Distribution of Assets Upon Dissolution.

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

ARTICLE V. MEETINGS OF MEMBERS

Section 5.1 Annual Meeting of the Members.

An annual informational meeting of the Members may be held on such day and at such hour as may be announced by the Board of Directors. At the discretion of the Board of Directors, annual Member meetings may be held in person, by audio, by videoconferencing techniques, or by any other means or combination thereof.

Section 5.2 Special Meetings of the Sponsor Members.

Special meetings of the Sponsor Members may be called at any time by the Board of Directors, the Chair (as defined below), or by petition of at least fifty percent (50%) of the Sponsor Members for any purpose set forth in these Bylaws consistent with Article II. Within twenty (20) days after receipt of a request by any person or persons entitled to call a special meeting of the Sponsor Members, notice shall be given that the special meeting will be held at a time chosen by the Board of Directors. At the discretion of the Board of Directors, Sponsor Member meetings may be held in person, by audio, by videoconferencing techniques, or by any other means or combination thereof permitted by the Delaware General Corporation Law.

Section 5.3 Voting, Quorum, Action and Written Consent.

Sponsor Members shall have the sole right to vote on any decision that is reserved to "members" within the meaning of the Delaware General Corporation Law and on those additional decisions that may be authorized to be submitted to a vote of the Members by the Board of Directors in accordance with these Bylaws. Each Sponsor Member shall have one (1) vote for each matter submitted to a vote by the Sponsor Members. A majority of the Sponsor Members shall constitute a quorum. Unless otherwise required by applicable law, every act or decision done or made by a majority of Sponsor Members present at a properly noticed meeting of Sponsor Members shall be the act of the Sponsor Members. In lieu of a special meeting, Sponsor Members may take action by written consent.

Section 5.4 Notice of Sponsor Member Meetings.

Written notice of each special meeting of the Sponsor Members shall be given not less than fourteen (14) days before the date of the meeting in accordance with Section 13.4. All such notices shall state the place, the date, and the hour of such meeting, and shall state such matters, if any, as may be expressly required by applicable law. Such notice shall describe the purpose of the meeting and shall identify a readily available source for further information, if appropriate. A proposed agenda of items to be considered shall be distributed prior to the meeting.

The Secretary, or any other Officer, or those persons calling the meeting, shall cause the notice of the meeting to be given. Such notice shall be given either personally or by mail or other means of written communication (including electronic means), addressed or delivered to each such Member at the address of such Member appearing on the books of the Alliance or given by the Member to the Alliance for the purpose of such notice. The notice shall be deemed to have been given at the time when delivered personally or deposited in the mail or sent by other means of written communication including electronic means. A majority of the Sponsor Members may waive in writing the requirement to provide notice of a meeting pursuant to this Section 5.4 or reduce the notice period required by this Section 5.4.

ARTICLE VI. BOARD OF DIRECTORS

Section 6.1 Powers.

Subject to the limitations of the Certificate of Incorporation, of these Bylaws, and of the Delaware General Corporation Law 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 the Alliance 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) authorize and empower Officers or agents to enter into contracts and other commitments on behalf of the Alliance; (iii) create Board Committees; (iv) create Committees; (v) appoint and delegate responsibilities and authority to such Board Committees, Committees, Officers, and agents; and (vi) approve final Deliverables in accordance with a process defined by the Board of Directors and compliant with the IPR Policy.

Section 6.2 Composition and Size of the Board of Directors.

There shall be a minimum of three (3) Directors and a maximum of fifteen (15) Directors. The maximum number of Directors may be increased or decreased by the Board of Directors in accordance with Section 6.9.7.

Each Founding Sponsor Member shall have the right to a seat on the Board of Directors so long as the Founding Sponsor Member remains in good standing and provided that the Founding Sponsor Member does not lose its right to a seat on the Board of Directors in accordance with Section 6.8. Other Sponsor Members will be considered for a seat on the Board of Directors from time to time when the total number of Board seats is greater than the number of Founding Sponsor Members with Board seats. Board representation in the case of Sponsor Members that are not Founding Sponsor Members will be on the basis of a Board term established by the Board of Directors. The Board of Directors will establish procedures for selection of Sponsor Members for Board representation by term which may involve polling of the Sponsor Members. If approved by the Board of Directors for a Board seat, each Sponsor Member may designate one (1) Director to represent the Sponsor Member on the Board of Directors and to serve in accordance with Section 6.3 during such Board term. No Founding Sponsor Member or Sponsor Member may have more than one (1) seat on the Board of Directors. For purposes of these Bylaws, a Founding Sponsor Member and its Affiliates, or a Sponsor Member and its Affiliates, as the case may be, shall together be deemed to be one (1) Member.

Section 6.3 Sponsor Member Director.

Each Founding Sponsor Member and Sponsor Member, to the extent permitted under Section 6.2 and unless such right has been lost pursuant to Section 6.8, may designate one (1) Director to serve on the Board of Directors. Such Director is referred to in these Bylaws as such Member's "Designated Director." Each Director must be an employee, officer, director, or consultant of the respective Founding Sponsor Member or Sponsor Member or an Affiliate thereof. Each Founding Sponsor Member and Sponsor Member shall have the option to remove its Designated Director and replace such Designated Director at any time and from time to time, with or without cause. Except as provided Section 6.6 and Section 6.7 no other entity or entities shall have any right to remove a Founding Sponsor Member's or Sponsor Member's Designated Director. In the event of the removal of a Designated Director by the Board of Directors pursuant to Section 6.6 or Section 6.7, the respective Founding Sponsor Member or Sponsor Member with continuing Board representation may designate a different Designated Director.

Section 6.4 Sponsor Member Alternate Director Designee.

Each Founding Sponsor Member and Sponsor Member with the right to designate a Director to serve on the Board of Directors in accordance with Section 6.2 may designate a representative to serve as a member of the Board of Directors on behalf of such Member due to the unavailability of the standing Designated Director, and each such alternate designee shall be referred to as an "Alternate Director Designee." Each Alternate Director Designee must be qualified to serve as a Director for the respective Founding Sponsor Member or Sponsor Member pursuant to Section 6.3. When serving in the capacity of Director due to the unavailability of the current Designated Director, the Alternate Director Designee shall be deemed to be the Designated Director for such Founding Sponsor Member or Sponsor Member without further notice and shall have all the rights, privileges and responsibilities of Director established under these Bylaws and under the Delaware General Corporation Law. Alternate Director Designees shall be entitled to attend all regular and special meetings of the Board of Directors but shall only be deemed a Director and accorded voting rights during the unavailability of such Sponsor Member's standing Designated Director. Founding Sponsor Members and Sponsor Members shall designate, and may change, their respective Alternate Director Designees at any time and from time to time by notice to the Chair, Executive Director or Secretary of the Alliance. No Founding Sponsor Member or Sponsor Member shall be deemed to have more than one (1) Designated Director serving at any time.

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Section 6.5 Vacancies; Resignations.

Vacancies on the Board of Directors shall exist: (1) whenever the maximum number of Board seats is higher than the total number of Founding Sponsor Members and Sponsor Members collectively; (2) whenever an individual serving as a representative to the Board of Directors resigns from the Board of Directors; (3) whenever a Director resigns from or is terminated from employment by the Member designating such Director or otherwise ceases to serve as an officer, director or consultant of such Member; (4) whenever a Director is removed from the Board of Directors in accordance with these Bylaws; (5) whenever the Member that has designated the Director ceases to be a Member; or (6) upon the death or incapacity of a Director.

Any Director may resign effective upon giving written notice to the Chair, the Secretary, the Executive Director or the Board of Directors of the Alliance.

Unless the Founding Sponsor Member or Sponsor Member is no longer a Member in a good standing or has lost its right to designate a Director pursuant to Section 6.8, the Sponsor Member with continuing Board representation that had designated the resigning, terminated, deceased, incapacitated, or removed Director shall have the right to replace that Director with another employee or representative by providing the Secretary or Executive Director with written notice of the same. Each Member eligible to designate a replacement Director shall endeavor to designate its replacement Director within thirty (30) days after the effective date of the Director's resignation, termination, death, incapacity, or removal.

Section 6.6 Removal with Cause.

The Board of Directors may declare vacant, by action in accordance with this Article VI, the office of any Director who has been declared of unsound mind by a final order of court, or convicted of a felony. A Director may also be removed with cause at any time by the Member that designated such Director. In the case of removal of a Director with cause, a "Disinterested Director" is a Director who is not the Director subject to the vote for removal.

Section 6.7 Removal without Cause.

Any one or more of the Directors may be removed without cause at any time by action of the Board of Directors in accordance with Section 6.9.7, provided that written notice of such removal is given to any Director so removed. In the case of removal of a Director without cause, a "Disinterested Director" is a Director who is not the Director subject to the vote for removal. A Director may also be removed without cause at any time by the Member that designated such Director.

Section 6.8 Termination of Board Seat for Non-Participation

Should the Designated Director of a Sponsor Member with Board representation miss more than two regularly scheduled meetings of the Board of Directors in any rolling twelve-month period, with notice of such absences provided following the respective meetings to the Sponsor Member, upon the third absence of the Designated Director for such Sponsor Member at a regularly scheduled meeting of the Board of Directors in the rolling twelve-month period, the Sponsor Member shall automatically lose its right to designate a Director to serve on the Board of Directors upon notice of the third absence to the Sponsor Member. For avoidance of doubt, attendance at a meeting of the Board of Directors by a Sponsor

Member's Alternate Director Designee shall not be considered an absence of the Designated Director. The rolling twelve-month period shall consist of calendar months.

Any Sponsor Member in good standing that has lost its right to designate a Director due to non-participation under this Section 6.8 may at any time following the one-year anniversary of such termination, petition the Board to be considered for Board representation again. Any such restoration of the right to be considered for a Board seat will be at the discretion of, and subject to any applicable procedures of, the Board as well as the availability under the Bylaws of an open Board seat. For all Sponsor Members (including Founding Sponsor Members), a restored right to Board representation will be the right to be considered for selection to a term of Board representation in accordance with Section 6.2.

Section 6.9 Meetings.

Section 6.9.1 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 Delaware General Corporation Law.

Section 6.9.2 Regular Meetings.

The Board of Directors shall hold a minimum of one (1) regular meeting annually. The Board of Directors shall specify the time and place for the holding of regular meetings of the Board of Directors.

Section 6.9.3 Special Meetings.

Special meetings of the Board of Directors may be called by a simple majority of the thencurrent Board of Directors, or, by any person or persons specifically authorized under the Delaware General Corporation Law to call special meetings of the Board of Directors. The Executive Director or Secretary shall give at least five (5) calendar days prior notice of any special meeting to each Director. Notice shall be given in accordance with Section 13.4 and shall specify the purpose of the meeting and include an agenda noting any items requiring a vote.

Section 6.9.4 Waiver of Meeting Notice.

The actions 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 the requirements of Section 13.4.3 are met.

Section 6.9.5 Action without Meeting.

Any action required or permitted to be taken by the Board of Directors may be taken without a meeting, if all members of the Board shall consent in writing to such action in one or more counterpart writings. Such written consent or consents shall be signed and may be sent either electronically or in a tangible writing and shall be filed with minutes of the proceedings of the Board. Such action by written consent shall have the same force and effect as a unanimous vote of the Board of Directors.

Section 6.9.6 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.

Section 6.9.7 Quorum and Voting.

A majority of the total number of Directors then in office shall constitute a quorum at any meeting of the Board of Directors. For avoidance of doubt, if at any time a Sponsor Member does not have a Designated Director in office, the number of Directors in office shall exclude such vacant Director position for all purposes including determination of quorum and calculation of the number of affirmative votes required for Board action.

Every act or decision done or made by a majority of the Directors present at a meeting duly held at which a quorum is present shall be the act of the Board of Directors, unless the Certificate of Incorporation, these Bylaws, or the Delaware General Corporation Law specifically requires a greater number. In the absence of a quorum at any meeting of the Board of Directors, a majority of the Directors present may adjourn the meeting as provided in Section 6.9.8. A meeting at which a quorum is initially present may continue to transact business, notwithstanding the withdrawal of enough Directors to leave less than a quorum, if any action taken is approved by at least a majority of the required quorum for such meeting unless the approval of more than a majority of the Directors present at a meeting duly held at which a quorum is present is otherwise required.

The table below sets forth categories of acts or decisions requiring the approval of more than a majority of the Directors present at a meeting duly held at which a quorum is present, and the number of affirmative votes required for the decision to be regarded as an act of the Board of Directors.

Matter to be Voted On	Number of Affirmative Votes Required
Changing the Alliance's purpose	
Selecting Sponsor Members for Board representation	
Approving final Deliverables	Two-thirds of the number of Directors then in office
Amendment to Certificate of Incorporation, Bylaws, Membership Agreement or IPR Policy	
Dissolution or merger of the Alliance, or transfer of all or substantially all of the Alliance's assets	
Appointment or removal of Officers	
Changing the maximum number of Board seats	
Defining or changing rights and privileges for Sponsor Members, Contributor Members, Institutional Members, or Adopter Members	
Removal of any Contributor Member, Institutional Member, or Adopter Member (in accordance with Section 4.13.3)	
Reinstating Board representation in accordance with Section 6.8	
Removal of any Director (in accordance with Section 6.6, or Section 6.7)	
	Two-thirds of all Disinterested Directors
Removal of any Sponsor Member (in accordance with Section 4.13.3)	

Section 6.9.8 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.

Section 6.9.9 Conduct of Meetings.

Meetings of the Board of Directors shall be presided over by the Chair, or in his or her absence, by a Vice Chair or other acting chairman chosen by a majority of the Directors present at that meeting. The Secretary 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 of Directors shall not be required to adopt *Robert's Rules of Order* in its entirety or any part thereof.

Section 6.9.10 Meeting Invited Guests.

The Board of Directors may invite special guests ("Invited Guests") to observe a specific portion of a meeting. Board of Directors members must make this request to the Chairman or Executive Director prior to the meeting. Any Board Member may object and any single objection will result in the request being denied. Invited Guests may be requested to remove themselves during various portions of the meeting. Approval to observe one Board Meeting does not confer rights to observe any subsequent meetings.

Section 6.10 Compensation.

Directors shall serve without compensation by the Alliance.

Section 6.11 Standard of Conduct.

A Director shall perform the duties of a Director, including duties as a member of any Board Committee upon which the Director may serve, in good faith, in a manner such Director believes to be in the best interests of the Alliance 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:

- a) One or more Officers or employees of the Alliance whom the Director believes to be reliable and competent in the matters presented; or
- b) 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
- c) A Board Committee upon which the Director does not serve, as to matters within the Board Committee's designated authority, which Board 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 therefor is indicated by the circumstances and without knowledge that would cause such reliance to be unwarranted.

Nothing in this Section 6.12 shall require a Director to act in a way that would impair the interests of the Sponsor Member that designated the Director, or violate any agreements, rules, or policies arising out of his or her employment by the Sponsor Member.

Directors shall at all times comply with applicable anti-corruption and anti-trust regulations.

Section 6.12 Self-Dealing Transactions.

As used in this Section 6.12, a "self-dealing contract" is any contract or transaction (i) between the Alliance and one or more of its Directors, or between the Alliance 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 the Alliance and a corporation, firm, or association of which one or more of its directors or employees or consultants are Directors of the

Alliance (collectively, "Interested Director(s)"). Pursuant to the Delaware General Corporation Law, no self-dealing contract or other action 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 Board Committee which authorizes, approves, or ratifies the self-dealing contract or action, if:

- a) Board of Directors or Board Committee Approval. The material facts as to the Interested Director's relationship or interest and as to the self-dealing contract or action are disclosed or are known to the Board of Directors or Board Committee, and the Board of Directors or Board Committee in good faith authorizes the self-dealing contract or action by the affirmative votes of no less than two-thirds (2/3rds) of the Disinterested Directors (as defined below), even though the Disinterested Directors be less than a quorum; or
- b) The self-dealing contract or action is fair as to the Alliance as of the time it is authorized, approved, or ratified, by the Board of Directors or Board Committee.

In the case of a vote on a self-dealing contract, a "Disinterested Director" is a Director who is not an Interested Director.

Section 6.13 Committees of Directors.

The Board of Directors may create such Board Committees, each consisting of two (2) or more Directors appointed by the Board, as it may from time to time deem advisable to perform such general or special duties as may from time to time be delegated to any such Board Committee by the Board of Directors, subject to the limitations contained in the Delaware General Corporation Law, or imposed by the Certificate of Incorporation or by these Bylaws. The Board of Directors may designate one or more Directors as alternate members of any Board Committee, who may replace any absent member at any meeting of the Board Committee.

ARTICLE VII. OFFICERS

Section 7.1 Officers.

The Officers of the Alliance shall be appointed in accordance with Section 7.2, and shall include a Chair, one or more Vice Chairs, a Treasurer, and a Secretary. The Alliance may have such other Officers with such titles as may be determined from time to time by the Board of Directors. With the exception of the Chair, all Officers shall be an employee or duly noticed representative of a Sponsor Member. One person may hold two or more offices except no single individual may authorize an act of the Alliance that requires the approval of two or more Officers.

Section 7.2 Election and Term.

The Officers of the Alliance shall be appointed by the Board of Directors in accordance with this Section 7.2, 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. With the exception of the Chair, the Board of Directors shall appoint each Officer from among representatives of the Sponsor Members for a period of one (1) year commencing with the first meeting of the Board of Directors. Except as set forth elsewhere in these Bylaws, any removal of an individual that is both

an Officer and Director from an Officer position shall not constitute a removal from a Director position and shall not limit the Director's rights as a member of the Board of Directors.

Section 7.3 Removal and Resignation.

Section 7.3.1Removal.

Any Officer may be removed, either with or without cause, by action of the Board of Directors in accordance with Section 6.9.7.

Section 7.3.2Resignation.

Any Officer may resign at any time by giving written notice to the Chair, Executive Director, or the Board of Directors of the Alliance. 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 Alliance under any contract to which the Officer is a party.

Section 7.4 Vacancies.

A vacancy in any Officer position because of death, resignation, removal, disqualification, or any other cause shall be filled as soon as possible and in any event within thirty (30) days in the manner prescribed in these Bylaws for regular appointments to such Officer position.

Section 7.5 Chair.

Subject to the supervisory powers of the Board of Directors, the Chair shall be the Chief Executive Officer of the Alliance and may receive compensation for these duties. The Chair shall have general responsibility for the supervision, direction, and control of the business and affairs of the Alliance. The Chair shall preside at all meetings of the Members and the Board of Directors. The Chair shall have such other powers and duties as may be designated from time to time by the Board of Directors. The Chair may delegate such duties to the Executive Director provided that the Chair appropriately supervises the Executive Director in his or her exercise of such duties. The Chair serves as an ex officio voting member of all Board Committees.

Section 7.6 Vice-Chair.

In the absence of a Chair, or in the event of his or her inability or refusal to act, a Vice Chair shall perform all the duties of the Chair, and when so acting shall have all the powers of, and be subject to all the restrictions on, the Chair. The Vice Chair shall have other powers and perform such other duties as may be prescribed by law, by the Certificate of Incorporation, or by these Bylaws, or as may be prescribed by the Board of Directors.

Section 7.7 Treasurer.

The Treasurer shall oversee the financial and accounting matters of the Alliance 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.

Section 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 the Alliance, if any, 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, and shall supervise the keeping of the records of the Alliance. 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.

Section 7.9 Compensation.

With the exception of the Chair, the Officers shall serve without compensation by the Alliance.

Section 7.10 Executive Director.

The Executive Director is not an Officer of the Alliance and is not a member of the Board of Directors. Upon approval by the Board of Directors, the Executive Director may attend any Board of Directors, Committee meeting. The Officers and the Board of Directors may delegate any of their respective duties to the Executive Director, including but not limited to:

- a) scheduling and setting up meetings;
- b) facilitating communication between Members, including providing timely notices of meetings;
- c) acting as the liaison to other consortia or associations with which the Alliance may choose to associate as instructed by the Board of Directors;
- d) providing Members with timely minutes, summaries, and other reports with respect to the activities of the Alliance as may be prepared by the Secretary, other Officers or the Executive Director;
- e) receiving and processing Membership Agreements, creating and updating lists of Members, and executing Membership Agreements on behalf of the Alliance;
- f) archiving and holding draft Deliverables; and
- g) 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 this Section 7.10, provided that the Executive Director enters into appropriate contracts protective of the Alliance, 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 Alliance 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.

ARTICLE VIII. COMMITTEES

Section 8.1 Committees of the Alliance.

The Board of Directors may create (or disband) Committees composed of Directors, non-Directors or of Directors and non-Directors, as the Board of Directors deems advisable, to perform such general or special duties pertaining to the Alliance's management, activities, or affairs, provided that the activities and affairs of the Alliance shall be managed, and all corporate powers shall be exercised, under the ultimate direction of the Board of Directors and provided further that Committees appointed pursuant to this Section 8.1 shall not have the authority of the Board of Directors.

Prior to forming a new Committee, the Board of Directors shall approve a Committee charter specifying the responsibilities of the Committee, the timeframe for development of work product, the composition and leadership of the Committee, the procedures under which the Committee is to operate, and other requirements to which the Committee must adhere. For the avoidance of doubt, such Committees will not create technical specifications, or versions of the LoRaWAN specification.

The Board of Directors may in its sole discretion form the following Committees or others as it sees fit:

Section 8.1.1Technical Steering Committee

The Technical Steering Committee will be made up of Member representatives as allowed by the Board of Directors. The Technical Steering Committee shall be responsible for, among other things: (i) gathering, defining, and prioritizing requirements for Deliverables; (ii) creating a working plan to accomplish the technical objectives of the Alliance; (iii) reviewing output of other Committees; (v) confirming that all contributions follow the IPR Policy; and (vi) providing guidance to the Marketing Committee as required.

Section 8.1.2Marketing Steering Committee

The Marketing Steering Committee may be made up of Member representatives as allowed by the Board of Directors. The Marketing Steering Committee shall be responsible for, among other things: (i) developing an Alliance marketing plan; (ii) driving education, outreach, and awareness programs; (iii) defining and promoting Alliance positioning; and (vi) managing communication to Members.

Section 8.2 Removal of Committee Chairperson.

Any Committee chairperson may be removed by the Board of Directors.

Section 8.3 Mailing List of Committees.

Each Committee member will provide a working email address to be archived on the Committee mailing list for formal group communication (e.g., for meeting announcements and minutes, documentation of decisions, and objections to decisions). It is the responsibility of the chair of the Committee to ensure that new Member representatives are subscribed to all relevant mailing lists.

Section 8.4 Task Force of Committees.

The chair of a Committee may form task forces (composed of Committee representatives) to carry out assignments for the Committee. The scope of these assignments will not exceed the scope of the Committee's charter. Each Committee will document the process it uses to create its Task Force.

Section 8.5 Committee Compensation.

Committee representatives shall serve without compensation. Each Member shall bear its own costs and expenses related to its participation in Committee, or other Alliance meetings.

Section 8.6 Deliverables.

The Deliverables created by the Committees will be owned by the Alliance and are subject to the restrictions and rights set forth in the IPR Policy.

Section 8.7 Participation in More than One Committee.

Member representatives may serve in an unlimited number of Committees, assuming such Member meets the qualifications for such Committees.

Section 8.8 Meetings of Committees.

Each Committee shall establish its own rules of procedure for convening meetings consistent with these Bylaws and its charter. Any meetings may be held by audio or video conferencing equipment so long as all Member representatives in the meeting can hear one another. All Member representatives participating by telephone or similar communication equipment shall be deemed to be present in person at the meeting. Each Committee shall have a secretary (or appointee) keep minutes and provide such documents to the Secretary of the Alliance.

Section 8.9 Committee Approval Procedures.

The Board of Directors shall adopt procedures to guide the proceedings of and voting in Committees. The Board of Directors will make these procedures and processes, and any revisions and modifications thereof, available to Committees promptly after they are adopted.

ARTICLE IX. BOOKS AND RECORDS

Section 9.1 Books and Records.

The Alliance shall keep adequate and correct books and records of accounts, minutes of the proceedings of the Board of Directors and Board Committees, and a record of the Members giving their names and addresses and the class of Membership held by each.

Section 9.2 Inspection of Corporate Records by Members.

The books of account and minutes of the proceedings of the Board of Directors, and of any Board Committees, shall be open to inspection at the principal office of the Alliance by each Sponsor Member at any reasonable time upon the written demand of such 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.

Section 9.3 Record Date.

- a) The Board of Directors may fix, in advance, a time in the future as the record date for the determination of Members entitled to notice of any meeting, to vote, to cast written ballot, or to exercise any rights in respect of any other lawful action. Such record date shall not be more than sixty (60) days prior to the date of such vote, ballot, or other exercise of rights, except that the record date for notice of a meeting shall not be more than sixty (60) nor less than ten (10) days prior to the meeting date.
- b) A determination of Members of record entitled to notice of or to vote at a meeting of Members shall apply to any adjournment of the meeting unless the Board of Directors fixes a new record date for the adjourned meeting.
- c) If no record date is fixed by the Board of Directors, the record date shall be fixed in accordance with the Delaware General Corporation Law.

ARTICLE X. GRANTS, CONTRACTS, LOANS, ETC.

Section 10.1 Grants.

The making of grants and contributions, and otherwise rendering financial assistance for the purposes of the Alliance, may be authorized by the Board of Directors. The Board of Directors may authorize any Officer or Officers, agent or agents, in the name of and on behalf of the Alliance to make any such grants, contributions, or assistance.

Section 10.2 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 the Alliance 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 the Alliance by any contract or engagement or to pledge its credit or to render it liable for any purpose or in any amount.

Section 10.3 Corporate Loans, Guarantees, and Advances.

The Alliance 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 Delaware General Corporation Law.

Section 10.4 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 by or to the Alliance and any and all securities owned by or held by the Alliance 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.

Section 10.5 Deposits.

The funds of the Alliance not otherwise employed shall be deposited from time to time to the order of the Alliance in such banks, trust companies, or other depositaries as the Board of Directors may select or as may be selected by an Officer, employee, or agent of the Alliance to whom such power may from time to time be delegated by the Board of Directors.

ARTICLE XI. INDEMNIFICATION

Section 11.1 Actions other than by or in the Right of the Alliance.

The Alliance shall indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the Alliance) by reason of the fact that he or she is or was a Director, Officer, employee or agent of the Alliance, or is or was serving at the request of the Alliance as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him or her in connection with such action, suit or proceeding if he or she acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the Alliance, and, with respect to any criminal action or proceedings, had no reasonable cause to believe this conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction, or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith and in a manner which he or she reasonably believed to be in or not opposed to the best interests of the Alliance, and, with respect to any criminal action or proceeding, had reasonable cause to believe that his or her conduct was unlawful.

Section 11.2 Actions by or in the Right of the Alliance.

The Alliance shall indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the Alliance to procure a judgment in its favor by reason of the fact that he or she is or was a Director, Officer, employee or agent of the Alliance, or is or was serving at the request of the Alliance as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against expenses (including attorneys' fees) actually and reasonably incurred by him or her in connection with the defense or settlement of such action or suit if he or she acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the Alliance and except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable unless and only to the extent that the Court of Chancery of the State of Delaware or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery of the State of Delaware or such other court shall deem proper.

Section 11.3 Success on the Merits.

To the extent that any person described in Section 11.1 or Section 11.2 has been successful on the merits or otherwise in defense of any action, suit or proceeding referred to in said Sections, or in defense of any

claim, issue or matter therein, he or she shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by him or her in connection therewith.

Section 11.4 Specific Authorization.

Any indemnification under Section 11.1 or Section 11.2 (unless ordered by a court) shall be made by the Alliance only as authorized in the specific case upon a determination that indemnification of any person described in said Sections is proper in the circumstances because he or she has met the applicable standard of conduct set forth in said Sections. Such determination shall be made (1) by a majority vote of such Directors who were not parties to such action, suit or proceeding, even if less than a quorum; (2) by a committee of such Directors designated by majority vote of such Directors, even though less than a quorum; (3) by a majority vote of a quorum of the Sponsor Members who were not parties to such action, suit or proceeding; or (4) if there are no such Directors or Sponsor Members, or if such Directors or Sponsor Members so direct, by independent legal counsel in a written opinion.

Section 11.5 Advance Payment.

Expenses incurred in defending a civil or criminal, administrative or investigative action, suit or proceeding may be paid by the Alliance in advance of the final disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of any person described in Section 11.1 or Section 11.2 to repay such amount if it shall ultimately be determined that he or she is not entitled to indemnification by the Alliance as authorized in this Article XI.

Section 11.6 Non-Exclusivity.

The indemnification and advancement of expenses provided by, or granted pursuant to, the other Sections of this Article XI shall not be deemed exclusive of any other rights to which those provided indemnification or advancement of expenses may be entitled under any Bylaw, agreement, of voting Members or Disinterested Directors or otherwise, both as to action in his or her official capacity and as to action in another capacity while holding such office.

Section 11.7 Jurisdiction of Delaware Court of Chancery.

The Delaware Court of Chancery is vested with exclusive jurisdiction to hear and determine all actions for advancement of expenses or indemnification. The Delaware Court of Chancery may summarily determine the Alliance's obligation to advance expenses (including attorneys' fees).

Section 11.8 Insurance.

The Board of Directors may authorize the Alliance to purchase and maintain insurance on behalf of any person who is or was a Director, Officer, employee or agent of the Alliance, or is or was serving at the request of the Alliance as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against him or her and incurred by him or her in any such capacity, or arising out of his or her status as such, whether or not the Alliance would have the power to indemnify him or her against such liability under the provisions of this Article XI.

Section 11.9 Continuation of Indemnification and Advancement of Expenses.

The indemnification and advancement of expenses provided by, or granted pursuant to, this Article XI shall continue as to a person who has ceased to be a Director, Officer, employee or agent of the Alliance and shall inure to the benefit of the heirs, executors and administrators of such a person.

Section 11.10 Severability.

If any word, clause or provision of this Article XI or any award made hereunder shall for any reason be determined to be invalid, the other provisions hereof shall not otherwise be affected thereby but shall remain in full force and effect.

Section 11.11 Intent of Article.

The intent of this Article XI is to provide for indemnification and advancement of expenses to the fullest extent permitted by Section 145 of the Delaware General Corporation Law. To the extent that such Section or any successor section may be amended or supplemented from time to time, this Article XI shall be amended automatically and construed so as to permit indemnification and advancement of expenses to the fullest extent from time to time permitted by law.

ARTICLE XII. COMPLIANCE WITH ANTITRUST LAWS

Section 12.1 Laws.

The purpose of the Alliance is set forth in Article II. The Alliance is intended to foster competition in the marketplace and will in no event become involved in the competitive business decisions of its Members, nor will it take or sanction the taking of any action that would have the intent or effect of restraining competition among and between such Members or otherwise contravene applicable antitrust and competition law. Accordingly, each of the Members of the Alliance hereby assumes responsibility to provide appropriate legal counsel to its representatives participating in any activity of the Alliance, including any meeting of the Alliance, Board of Directors, Committee, or other group established by the Alliance regarding the requirements of antitrust and competition law.

Section 12.2 Support for Antitrust Laws.

The Alliance unequivocally supports the policy of competition served by the antitrust laws and uncompromisingly intends to comply with such laws. Each Member further acknowledges that it may compete with the others 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. It shall be the responsibility of every Member of the Alliance to be guided by this policy of compliance with the antitrust laws in all of the Alliance's activities. It shall be the special responsibility of the Alliance's Officers and Committee chairpersons to ensure that this policy is known and to actively promote adherence to this policy in the course of activities pursued under their leadership.

ARTICLE XIII. MISCELLANEOUS

Section 13.1 Public Inspection and Disclosure.

The Alliance 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 as they become available.

Section 13.2 Political Activities.

The Alliance shall not make any political expenditure or lobbying expenditure, which would result in the loss of, or otherwise adversely affect, status as a corporation exempt from U.S. Federal income tax under Section 501(c)(6) of the Code.

Section 13.3 Communication Policies.

Section 13.3.1 Press Releases.

No Member may make a press or other public announcement regarding its activities as a Member of the Alliance that names the identities of any other Member unless prior written consent is received from any Member named in the press release or public announcement. A Member may make a press or other public announcement regarding any subject germane to its purposes and may identify itself as a Member of the Alliance.

Section 13.3.2 Publication.

The Alliance covenants that any Deliverable will be published to all Members within thirty (30) days following adoption. The Alliance agrees that any publication of a Deliverable shall include appropriate disclaimers, as agreed by the Alliance, to prevent any third party from claiming that any rights are granted by implication or estoppel because of such publication.

Section 13.4 Notices.

Section 13.4.1 Method of Delivery; Effectiveness; Electronic Communications.

Subject to the provisions below relating to notice by electronic transmission to Members, all written notices from the Alliance to Directors and Members may be given at the Alliance's option by electronic mail, facsimile telecommunication, commercial delivery service, mail, or similar means, addressed to a Director or Member at his, her or its address for such form of delivery as it appears on the records of the Alliance. Unless otherwise required by these Bylaws or by law, notice given pursuant to this Section 13.4shall be deemed given: (1) if by facsimile telecommunication (A) to a Director, when directed to the number for such Director as it appears on the records of the Alliance, and (B) to a Member, when directed to a number at which the Member has consented to receive notice; (2) if by electronic mail (A) to a Director, when directed to the electronic mail address for such Director as it appears on the records of the Alliance, and (B) to a Member, when directed to an electronic mail address at which the Member has consented to receive notice; (3) if by electronic transmission, when directed to the Director or Member; (4) if by in-hand delivery, at the time it is actually given; and (5) if by commercial delivery carrier or similar means, at the time when the same

shall be deposited prepaid with the carrier. For purposes of these Bylaws, "electronic transmission" means any form of communication, not directly involving the physical transmission of paper, that creates a record that may be retained, retrieved, and reviewed by a recipient thereof, and that may be directly reproduced in paper form by such a recipient through an automated process.

Section 13.4.2 Electronic Communications with Members.

The Alliance may give notice by electronic transmission to any Member who consents to receive notice by electronic transmission. Any consent by a Member to receive notice by electronic transmission shall be revocable by that Member by written notice to the Alliance. Any such consent shall be deemed revoked if (i) the Alliance is unable to deliver by electronic transmission two (2) consecutive notices given by the Alliance in accordance with such consent; and (ii) such inability becomes known to the Secretary of the Alliance, or to the other person responsible for the giving of notice; provided, however, the inadvertent failure to treat such inability as a revocation shall not invalidate any meeting or other action. Without limiting the foregoing, the Alliance adopts electronic mail as its principal source of communication with its Members. Each Member acknowledges and agrees that the Alliance shall not be under any obligation (except as otherwise required by the Delaware General Corporation Law or these Bylaws) to send any notice to any Member by any means other than electronic mail, and it is therefore the responsibility of each Member to avail itself of and make such arrangements as may be necessary to receive notice in such fashion.

Section 13.4.3 Waiver of Notice.

Whenever any notice is required to be given under the provisions of law or of the Certificate of Incorporation or of these Bylaws, a waiver thereof in writing, signed by the person or persons entitled to said notice, or a waiver by electronic transmission by the person entitled to notice, whether before or after the time stated therein, shall be deemed equivalent thereto. Each Director who (i) attends a Board meeting without protesting, prior thereto or at its commencement, or (ii) approves the minutes of such Board meeting, 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 waivers, consents, and approvals related to notice shall be filed with the Alliance records and made a part of the minutes of the meeting.

ARTICLE XIV.

SEAL AND FISCAL YEAR

Section 14.1 Seal.

The Board of Directors may, but shall not be required to, adopt a corporate seal, which shall be in the form of a circle and shall bear the full name of the Alliance and the year and state of its incorporation.

Section 14.2 Fiscal Year.

The fiscal year of the Alliance shall be determined, and may be changed from time to time, by action of the Board of Directors.

ARTICLE XV. EFFECTIVE DATE AND AMENDMENTS

Section 15.1 Effective Date.

These Bylaws shall become effective immediately upon their adoption by the Board of Directors.

Section 15.2 Amendments.

These Bylaws may only be altered, amended, or repealed, and new Bylaws may only be adopted by action of the Board of Directors in accordance with Section 6.9.7.