
DIGITAL TWIN CONSORTIUM BYLAWS

1. Mission and Scope of the Digital Twin Consortium.

1.1. **Purpose.** The purpose of The Digital Twin Consortium™ (the “Consortium”) is to raise, budget, spend funds and enable collaboration in support of various promotional or open source activities (the “Working Groups”) relating to defining, promoting, and improving digital twin technology. The Consortium is a distinct program of the Object Management Group, Inc. (“OMG”), operating under and consistent with OMG’s tax-exempt status and, subject to the limitations of Section 12, adhering to the provisions of OMG’s Bylaws and policies that concern OMG consortia, communities, programs and other subgroups, which as of the Effective Date include the following: OMG Bylaws Sections 1.6, 10.1, 14.3, and 15; OMG Antitrust Policy (as further noted in Section 8 below); OMG Privacy Policy; OMG’s “Trademarks, Logos, and Copyrighted Materials – Requests for Use” (subject to Section 7 below); and OMG’s “Content Disclaimer and Limitation of Liability.” (For clarification, (i) these Bylaws shall supersede any contrary policies of OMG, and (ii) none of the policies issued by the Platform Technology Committee, Domain Technology Committee and Architecture Board shall apply to the Consortium as long as it does not develop or adopt technical specifications or specify technologies to be used.)

1.2. Governance.

1.2.1. **Consortium.** The Steering Committee of the Consortium (“Steering Committee”) manages the Consortium and the representatives on the Steering Committee will owe to the Consortium, as a program of OMG, duties of care and loyalty that are comparable to the fiduciary duties owed by the members of the board of directors of a corporation.

1.2.2. **Working Groups.** The Steering Committee will review and approve a mission-oriented charter for each Working Group (each, a “Charter”).

2. **Membership.** The Consortium will be composed of Founding Members, Contributing Members, and General Members (collectively, “Members”). The number of Founding Members and Contributing Members, taken together, cannot exceed ten. All Members must (i) execute a membership agreement, which will be in a form approved by the Steering Committee and to which OMG shall be a party (a “Membership Agreement”), and (ii) pay the fees for the relevant class of Membership, which fees are held by OMG for the benefit of its Consortium program, subject to these Bylaws. Founding Members must execute their Membership Agreement at a Founding Member level prior to April 14, 2020. Before any entity becomes a Contributing Member, that entity must execute its Membership Agreement at a Contributing Member level, commit to a 4-year membership, and be confirmed by a two-thirds vote of the entire Steering Committee. During the term of their membership, all Members will comply with all policies that the Consortium may adopt; all new policies and amendments will be effective upon at least thirty days written notice to then-current Members.

- 2.1. **General Members** will be entitled to:
 - 2.1.1. Participate in Consortium general meetings, initiatives, events and any other activities; and
 - 2.1.2. Identify themselves as members of the Consortium supporting the Consortium.
 - 2.2. **Contributing Members** will be entitled to all the rights of General Members and will be additionally entitled to appoint a representative to the Steering Committee.
 - 2.3. **Founding Members** will be entitled to all the rights of General Members and will be additionally entitled to appoint a representative to the Steering Committee.
 - 2.4. **Affiliates.** A Member and its Affiliates will be treated as a single Member. A Member's "Affiliates" are all other entities that Control, are Controlled by, or are under common Control with that entity. As used herein, "**Control**" means (a) in the case of corporate entities, direct or indirect ownership of more than fifty percent (50%) of the stock or shares having the right to vote for the election of directors, and (b) in the case of a limited liability company or other non-stock entities, the direct or indirect power to manage, direct, or cause the direction of the management and policies of the non-stock entity or the power to elect more than fifty percent (50%) of the members of the governing body of such non-corporate entity.
 - 2.5. **No Membership Assignment.** Consortium Membership is non-transferable, non-salable and non-assignable, but a Member may transfer its current Membership to a successor of substantially all of its business or assets, whether by merger, sale or otherwise, if the successor agrees to be bound by these Bylaws and the Membership Agreement.
3. **Steering Committee.**
 - 3.1. **Steering Committee Representatives.** Each Founding Member and each Contributing Member will appoint one voting representative and one alternate to the Steering Committee. If the voting representative cannot attend a Steering Committee meeting, the voting representative may designate its voting responsibility to the alternate. The Executive Director of the Consortium will be an *ex officio* voting representative on the Steering Committee. Each of the representatives on the Steering Committee (except the Executive Director) will be appointed by a Consortium Member.

3.2. Conduct of Meeting

- 3.2.1. **Meeting Times and Places.** The Steering Committee will meet at such times as agreed upon by the voting representatives of the Steering Committee, who may participate in meetings by conference telephone or similar means of remote communication.
- 3.2.2. **Participants.** Steering Committee meetings will be limited to the Steering Committee representatives, invited guests, and the Executive Director.
- 3.2.3. **Quorum & Voting.** Steering Committee meetings follow the requirements for quorum and voting defined in these Bylaws.
- 3.2.4. **Confidentiality.** Information disclosed in Steering Committee meetings is not confidential, despite any markings or statements to the contrary; provided that information concerning the business or operations of OMG disclosed at these meetings shall be confidential, except as otherwise determined by the OMG Board. Regardless, no attendee may make any public disclosures of any Steering Committee meeting information without the approval of the Steering Committee authorizing that disclosure.

3.3. Officers and Executive Director.

- 3.3.1. **Appointment.** There will be a minimum of three officers (“Officers”) of the Consortium, a Chairperson (“Chair”), a Secretary, and a Treasurer. The Officers must be Steering Committee voting representatives. The Steering Committee will nominate and elect the Officers at the first meeting. Additional Officer positions may be created by a vote of the Steering Committee.
- 3.3.2. **Responsibilities.**
 - 3.3.2.1. **Chair.** The Chair will preside over meetings of the Steering Committee and manage any day-to-day operational decisions.
 - 3.3.2.2. **Secretary.** The Secretary will keep a full and complete record of the proceedings of the Steering Committee, will give notice of all meetings of the Members, will supervise the Consortium’s recordkeeping, and will submit minutes for Steering Committee approval.
 - 3.3.2.3. **Treasurer.** The Treasurer will assist in the preparation of budgets for Steering Committee approval, monitor expenses against the budget and authorize expenditures in excess of \$5,000 that are not in the approved budget.
 - 3.3.2.4. **Executive Director.** The Executive Director of the Consortium (“Executive Director”) is appointed by OMG, subject to the approval of the Steering Committee, and may be removed by the Steering Committee. The Executive Director shall be an *ex officio* voting member of the Steering Committee and responsible for facilitating its meetings and actions. Additionally, the Officers may delegate any of their respective duties to the Executive Director.

3.4. **Steering Committee Responsibilities.** The Steering Committee will be responsible for overall management of the Consortium, including the following:

- 3.4.1. Approving and removing the Executive Director, as provided in Section 3.3.2.4.
- 3.4.2. Approving a budget directing the use of funds raised by the Consortium from all sources of revenue;
- 3.4.3. Nominating, electing, and removing (with or without cause) Officers of the Consortium;
- 3.4.4. Nominating, considering, and approving Working Groups to be supported by the Consortium;
- 3.4.5. Overseeing all Consortium business and outreach matters;
- 3.4.6. Adopting and maintaining policies or rules and procedures for the Consortium;
- 3.4.7. Establishing advisory bodies, committees, programs or councils to resolve any particular matter or in support of the mission of the Consortium;
- 3.4.8. Publishing use cases, user stories, websites and priorities to help inform the ecosystem and community;
- 3.4.9. Voting on all decisions or matters coming before the Steering Committee.

Notwithstanding the foregoing, all actions and decisions of the Steering Committee shall be reported to and subject to the oversight of OMG, subject to the limitation set forth in Section 12 below.

4. **Voting.**

- 4.1. **Quorum.** Quorum for Steering Committee meetings will require at least fifty percent of the voting representatives to be present. If advance notice of the meeting has been given per normal means and timing, the Steering Committee may continue to meet even if a quorum is not met but will be prevented from making any binding decisions at the meeting.
- 4.2. **Decision Making.** Decisions will be made based on consensus. If consensus cannot be reached, the Steering Committee will make the decision by a vote. In any vote, each voting representative will have one vote.
- 4.3. **Default Majority Vote.** Except as provided elsewhere in these Bylaws, decisions by vote at a meeting will require a simple majority vote of present non-abstaining voting representatives of the Steering Committee, provided a quorum for the meeting is met. Except as provided elsewhere in these Bylaws, decisions by electronic vote without a meeting will require a majority of all voting representatives of the Steering Committee members.

5. Termination of Membership.

5.1. The Steering Committee may suspend or terminate the membership of a Member as follows:

5.1.1. **Failure to Renew Membership.** If the Member fails to pay owed dues within sixty (60) days after a written notification of delinquency is delivered to such Member, the Steering Committee by majority vote may elect either to suspend the Member or terminate its membership.

5.1.2. **Resignation.** If the Member provides written notice of resignation to the Consortium, its membership is terminated fifteen (15) days from the date that written notice is received by the Consortium.

5.1.3. **Violation of Policies or Duties of Membership.** If the Steering Committee unanimously (except for the Steering Committee voting member appointed by the Member) finds that Member—after Member has had notice and opportunity to be heard on the issue—has violated any material provision of these Bylaws, the Member’s Member Agreement, or other Consortium policies or procedures.

5.1.4. **Member’s Dissolution.** If a Member dissolves, its membership will be deemed terminated as of the dissolution date unless transferred to a successor (pursuant to section 2.5).

5.2. **No Refund.** A terminated Member shall not receive any refund of dues already paid for the current dues period regardless of the basis for termination.

6. **Working Groups.** Initially the Consortium will have two types of Working Groups, promotional Working Groups and open source Working Groups.

6.1. **Promotional Working Groups.** Promotional Working Groups shall have the general goal of promoting digital twins technology, and shall be subject to the intellectual property policy in Exhibit A.

6.2. **Open Source Working Groups.** Open source Working Groups shall have the general goal of building open source software for digital twins technology, and shall be subject to the intellectual property policy in Exhibit B. Each open source Working Group Charter shall choose an appropriate license listed as a “Popular” license by the Open Source Initiative at <https://opensource.org/licenses>.

6.3. **No Standards Development.** The Consortium does not develop or adopt technical specifications or specify technologies to be used, but may from time to time recommend that particular standard-setting or specification-development Working Groups be undertaken by standards setting organizations. The Consortium may also enter into liaison agreements with standards setting organizations.

7. **Trademarks.** Any trademarks relating to the Consortium or any Working Group, including without limitation any mark relating to any Consortium programs, must be transferred to and held by OMG for the benefit of its Consortium program, and be available for use pursuant to OMG's then-current trademark policies and procedures.
8. **Antitrust Guidelines.** The Consortium adopts the terms of OMG's Antitrust Law Compliance Policy Statement, as adopted and amended by OMG Board of Directors, 13th September 2016, available at: <https://www.omg.org/cgi-bin/doc?omg/16-10-01.pdf>.
9. **Budget.**
 - 9.1. **Annual Budget.** The Steering Committee will approve an annual budget. The budget and the purposes to which it is applied must be consistent with both the non-profit and tax-exempt mission of OMG. OMG will be consulted on and may participate in the development of the budget, but the budgetary decisions of the Steering Committee are final except as provided in Section 12.
 - 9.2. **OMG Reporting.** OMG will provide the Steering Committee with regular reports of spend levels against the budget. Under no circumstances will OMG have any expectation or obligation to undertake an action on behalf of the Consortium or otherwise related to the Consortium that is not covered in full by funds raised by the Consortium.
 - 9.3. **Unfunded Obligations.** In the event an unbudgeted or otherwise unfunded obligation arises related to the Consortium, OMG will coordinate with the Steering Committee to address gap funding requirements.
10. **General & Administrative Expenses.**
 - 10.1. **Property Held For Consortium.** OMG will hold funds, dues, and other cash received on behalf of the Consortium ("Funds") for the use and benefit of its Consortium program, subject to Section 10.2, and may disburse those Funds in accordance with the budget, provided that (i) amounts up to \$5000 that are not in the budget may be disbursed as approved or directed by the Treasurer, and (ii) amounts up to \$10,000 that are not in the budget may be disbursed as approved or directed by the Executive Director and Chair. OMG will provide information and reports to confirm how Funds were spent.
 - 10.2. **Shared Services.** The budget and related expenditures will permit OMG to retain a portion of the Funds for use outside its Consortium program as compensation for the finance, accounting, operations and other services it will provide the Consortium (the "Shared Services"). The Shared Services and applicable percentage are further set out in Schedule A.

11. **Amendments.** These Bylaws may be amended by a two-thirds vote of the entire Steering Committee, provided that the provisions establishing OMG’s rights hereunder, including without limitation Section 12, cannot be amended without the express written consent of OMG.

12. **OMG Authority.**

12.1. **Override.** OMG may override or overturn any decisions, policies, bylaws, budget, spending decision or other actions made or undertaken by the Consortium or its Steering Committee if OMG’s Board has a good faith belief that one or more of the following apply:

12.1.1. The decision or action could jeopardize OMG’s nonprofit or tax-exempt status.

12.1.2. The decision or action could violate, or cause OMG to be in breach of, any law, rule, order, governing document, or contract that is binding on OMG, including without limitation applicable antitrust, privacy and export control laws and regulations.

12.1.3. The decision or action could cause the OMG Board to be in breach of its fiduciary duties.

12.2. **Consortium Assets; Removal.** For clarification, all copyrights, trademarks, and other properties or assets acquired by or developed by the Consortium are and shall at all times be deemed properties and assets of OMG, and may not be removed from OMG’s ownership and control, provided that these assets shall be held by OMG for the benefit of its Consortium program, subject to these Bylaws.

EXHIBIT A

Promotional Working Group Intellectual Property Policy

1. **Copyright License and Ownership.** Each Member agrees to grant, and hereby grants, Digital Twin Consortium a nonexclusive, irrevocable, sublicensable, royalty-free, paid up, worldwide license, under its copyright or license rights in the Content Contribution, to use, copy and modify the Content Contribution, to make derivative works from it, and to publicly display, publicly perform and distribute the Content Contribution and any such modifications and derivative works. Subject to the Member's or other person's ownership of copyright in a Content Contribution, Digital Twin Consortium shall own all copyright rights in any compilation or derivative work created by Digital Twin Consortium from Content Contributions in accordance with the copyright license expressly granted under this Section and the terms of this Promotional Working Group Intellectual Property Policy.
2. **Patents.** Except as specifically agreed under a separate agreement, no patent license or rights are granted (whether by implication, estoppel, or otherwise) by any Member(s) to any other Member(s) or third parties.
3. **Content Contribution** means any material (other than software) that (a) is submitted to a Working Group by a representative of a Member (or by another person expressly permitted to do so by the Steering Committee or Executive Director) in any written, electronic (including email) or other tangible form, such as during an in-person meeting or in an electronic conference or mailing list maintained by Digital Twin Consortium, and (b) is proposed for inclusion in a Digital Twin Consortium deliverable (other than software), such as a reference architecture, test case or white paper.

EXHIBIT B

Open Source Working Group Intellectual Property Policy

1. The Consortium, its Members, and Persons contributing software code or Data contributions for use by the Consortium acknowledge that the copyright in all such contributions (“Code Contributions or “Data Contributions” respectively) will be retained by the copyright holder as independent works of authorship and that no contributor or copyright holder will be required to assign copyrights in Code Contribution to the Working Group. “Data” means information contributed to the Consortium for machine analysis.
2. **Code contributions.** Except as described in Section 3, all Code Contributions to the Working Group are subject to the following:
 - a. All new inbound Code Contributions to the Working Group must be made using the license selected by the Working Group, with the approval of the Steering Committee, from among the “Popular” licenses approved by the Open Source Initiative (the “Working Group Code License”); for clarification, each open source Working Group may adopt a different form of OSI-approved license, subject to the approval of the Steering Committee.
 - b. All new inbound Code Contributions must also be accompanied by a Developer Certificate of Origin (<http://developercertificate.org>) sign-off in the source code system that is submitted through a contribution process that will bind the authorized contributor and, if not self-employed, the contributor’s employer to the applicable license;
 - c. All outbound code distributed or developed by a Working Group (“Developed Code,” which may consist of Code Contributions, of modifications or derivative works of Code Contributions, or of newly developed code) will be made available under the Working Group Code License.
 - d. The Working Group may seek to integrate with and contribute Developed Code back to other open source projects (“Upstream Code Projects”). When integrating such code, the Working Group will determine whether it is willing and able to conform to all license requirements of the Upstream Projects, including dependencies, leveraged by the Working Group. Contributions of Developed Code to Upstream Code Projects not stored within the repository that holds the Working Group’s Developed Code will comply with the contribution process and license terms for the applicable Upstream Project.
3. **Exceptions to Code Contributions.** The Steering Committee may approve the use of an alternative license or licenses for inbound or outbound Code Contributions or other Developed Code on an exception basis. To request an exception, the Working Group will be required to describe the Code Contribution or Developed Code at issue, the alternative open source license(s), and the justification for using an alternative open source license for the Working Group. License exceptions must be approved by a two-thirds vote of the entire Steering Committee. In the event of a license change to an existing project, Code Contributions prior to the license change remain under the previous license unless otherwise approved by the contributor.
4. **Documentation.** Documentation will be received and made available by the Working Group under the Working Group Code License.
5. **Data Contributions.** Except as described in Section 5, all Data Contributions to the Working Group are subject to the following:

- a. All new inbound Data Contributions to the Working Group must be made using the license selected by the Working Group, with the approval of the Steering Committee, from among the Community Data License Agreements listed on cdla.dev (the “Working Group Data License.”).
 - b. All new inbound Data Contributions must also be accompanied by a representation from the contributor they have the rights necessary to make the Data Contribution available under the Working Group Data License.
 - c. All outbound Data distributed or developed by a Working Group (“Developed Data,” which may consist of Data Contributions, of modifications to Data Contributions, or of newly developed Data), if made available, will be under the Working Group Data License.
 - d. The Working Group may seek to integrate with and contribute Developed Data back to other data projects (“Upstream Data Projects”). When integrating such data, the Working Group will determine whether it is willing and able to conform to all license requirements of the Upstream Projects, including dependencies, leveraged by the Working Group. Contributions of Developed Data to Upstream Data Projects not stored within the repository that holds the Working Group’s Developed Code will comply with the contribution process and license terms for the applicable Upstream Project.
6. **Exceptions to Data Contributions.** The Steering Committee may approve the use of an alternative license or licenses for inbound or outbound Data Contributions or other Developed Data on an exception basis. To request an exception, the Working Group will be required to describe the Data Contribution or Developed Data at issue, the alternative open source license(s), and the justification for using an alternative open source license for the Working Group. License exceptions must be approved by a two-thirds vote of the entire Steering Committee. In the event of a license change to an existing project, Data Contributions prior to the license change remain under the previous license unless otherwise approved by the contributor.

SCHEDULE A

Shared Services

OMG shall provide the following in-house services to the Consortium:

- Public Relations with consortium PR experts
- Business development
- Executive management
- Finance and accounting
- Website development and maintenance
- Trade show planning and execution
- Member meetings planning and execution
- Funding and using established credit for meeting deposits etc.
- Office space
- General and administrative costs
- Intangibles include industry contacts, brand name, reputation

OMG shall retain 40% of all dues and other revenues collected by or on behalf of the Consortium as compensation for its shared services, provided that this percentage may be adjusted by OMG from time to time with the approval of the Steering Committee.