

**OPEN NETWORKING FOUNDATION**

**INTELLECTUAL PROPERTY RIGHTS POLICY**

**SECTION 1. DEFINITIONS**

This Intellectual Property Rights Policy will apply solely to the (normative) Technical Specifications of the Open Networking Foundation approved and released by the Open Networking Foundation after the date of adoption thereof, as well as future amendments or revisions thereto, if any. Except as otherwise defined below, all capitalized terms will have the meaning defined for them in the Bylaws. The following definitions apply to this Intellectual Property Rights Policy:

1.1. “**Compliant Portion**” means only those specific portions of products (hardware, software or combinations thereof) that implement a Final Specification.

1.2. “**Contribution**” means a proposed submission by a Member, proposing an addition to or modification of a Draft Specification, that is submitted to the Corporation by a Member either: (a) in writing (including a writing in electronic medium) and clearly marked as a “Contribution”, or (b) orally, so long as the Contribution is: (i) memorialized in the formal written minutes of the meeting where it was proposed, (ii) correctly attributed in the meeting minutes to the Member, and (iii) not withdrawn (but may be corrected in writing) by the Member before or at the time that the meeting minutes are approved at a subsequent meeting.

1.3. “**Draft Specification**” means a document in development or under consideration for adoption as a Final Specification, including amendments to existing Final Specifications which amendments have not been adopted and approved for release by the Corporation in accordance with Section 2.

1.4. “**Final Specification**” means a document designated by the Corporation as a “Final Specification” that has been adopted and approved for release by the Corporation in accordance with Section 2.

1.5. “**Necessary Claims**” means those claims of all present and future patents and patent applications, other than design patents and design registrations, throughout the world, concerning interfaces and protocols for server control of switches, which are necessarily infringed by implementation of a Final Specification (without considering any Contributions not included in the Final Specification). A claim is necessarily infringed only when it is not possible to avoid infringement as of the date the Final Specification was adopted or the patent claim first came into existence, whichever last occurred, by another commercially reasonable noninfringing implementation of such Final Specification. Necessary Claims do not include any claims other than those set forth above, even if contained in the same patent as Necessary Claims. Further, Necessary Claims do not include: (a) any underlying technology that may be useful in developing, designing, manufacturing, selling or using any product or portion thereof that complies with the Final Specification but is not expressly set forth in or inherently required by the Final Specification (examples of such technologies include, without limitation, semiconductor manufacturing technology, compiler technology, object oriented technology, and operating system technology); (b) the implementation or use of other published specifications developed elsewhere but referred to in the body of the Final Specification; (c) any portion of any product or any combination of products (or portions of products) that are not compliant with the Final Specification; or (d) any implementation examples contained in the Final Specification unless the Final Specification expressly states that such implementation examples are to be included within the scope of the limited patent license in Section 3, below.

## ***SECTION 2. SPECIFICATION REVIEW AND NOTICE***

2.1. Draft Specifications. A Technical Work Group to be chartered by the Board of Directors will have the responsibility for drafting and developing the Draft Specifications. At such time as a Technical Work Group determines that the Draft Specification is ready for final review, the Technical Work Group will send the Draft Specification to the Board of Directors for their approval. If the Board of Directors approves the Draft Specification, they will send complete copies of the Draft Specification to all Members for review pursuant to Section 2.2, below. If the Board of Directors does not approve such Draft Specification, the Secretary will return such Draft Specification to the Technical Work Group.

2.2. Draft Specifications Review Period. Unless a Member provides a timely Licensing Objection or Notice of Withdrawal pursuant to Section 2.3 or 2.4, below, within sixty (60) days beginning from the date that the Board of Directors sends the Draft Specification to the Members for review pursuant to Section 2.1, the Member is deemed to have committed to the licensing provisions of Section 3 with regard to Necessary Claims if and when the Draft Specification is approved by the Board of Directors as a Final Specification.

2.3. Licensing Objection. A Member, irrespective of the Member's participation in a Technical Working Group, may provide written notice of objection to the licensing commitment under Section 3 to the Executive Directors pursuant to this Section 2.3 ("Licensing Objection"), if that Member determines that the Draft Specification implicates Necessary Claims which that Member is unwilling to license to other Members pursuant to Section 3. A Member wishing to exercise the Licensing Objection under this provision must deliver the Licensing Objection within the review period set forth in Section 2.2. A Licensing Objection must include written identification of any Necessary Claims of the Member that it does not wish to license. In the event that a Member submits a Licensing Objection within the review period set forth in Section 2.2, above, such Member will not be required to grant a license under Section 3 for the identified Necessary Claims. Notwithstanding the above, a Member may not submit a Licensing Objection with regard to Necessary Claims to that Member's Contributions to the Draft Specification; Members will be required to grant licenses under Section 3 for Necessary Claims to their respective Contributions.

2.4. Withdrawal. A Member who has not made a Contribution to the Draft Specification irrespective of the Member's participation in a Technical Working Group, may provide written notice to the Executive Directors that it withdraws from participation in the Corporation pursuant to this Section 2.4 ("Notice of Withdrawal"), if that Member determines that the Draft Specification implicates Necessary Claims which that Member is unwilling to license to other Members pursuant to Section 3. A Member wishing to exercise the right to withdraw under this provision must deliver a Notice of Withdrawal within the review period set forth in Section 2.2. A Notice of Withdrawal must include written identification of any Necessary Claims of the Member that it does not wish to license. In the event that a Member submits a Notice of Withdrawal within the review period set forth in Section 2.2, above, such Member will not be required to grant a license under Section 3 for the identified Necessary Claims.

2.4. Reacting to any Licensing Objection or Notice of Withdrawal; Subsequent Draft Specification Reviews. Any and all Licensing Objections or Notices of Withdrawal timely received by the Executive Director will be immediately forwarded to both the Board of Directors and Technical Work Group. Either the full Technical Work Group, or an ad-hoc subcommittee thereof, will review and evaluate each Licensing Objection and Notice of Withdrawal, as well as alternative design options or recommendations for the Draft Specification. The Technical Work Group or subcommittee thereof will deliver to the Board of Directors the results of its findings within a reasonable period of time (hereinafter referred to as the "Objection/Withdrawal Evaluation"). Should the Technical Work Group or ad-hoc subcommittee thereof recommend material changes to the Draft Specification, then the Technical Work Group will commence

the necessary modifications to the Draft Specification. Once modified, the Draft Specification review process started in Section 2.1, above, will commence again. Should the Technical Work Group or ad-hoc subcommittee thereof recommend that no material changes be made to the Draft Specification, then the Draft Specification will proceed for final approval pursuant to Section 2.5, below.

2.5. Approval & Release of Final Specifications. After completion of the Draft Specification review process stated in Sections 2.1 through 2.4, above, the Technical Work Group will submit such Draft Specification to the Board of Directors for final review. If the Board of Directors approves such Draft Specification via an affirmative vote of the total number of Directors pursuant to Section 5.6 of the Bylaws, the Draft Specification will become a Final Specification of the Corporation immediately upon release to the Members. In the event that the Board of Directors fails to approve such Draft Specification as a Final Specification, such Draft Specification will be returned to the Technical Work Group.

### ***SECTION 3. LICENSING OF INTELLECTUAL PROPERTY RIGHTS***

Each Member, on behalf of itself and its Affiliates, hereby grants to the other Members and their Affiliates, an option to receive under royalty free, reasonable terms and conditions that are free of any unfair discrimination, a nonexclusive, nontransferable, irrevocable (but subject to Defensive Suspension as defined below), worldwide license under their Necessary Claims to make, have made, use, import, offer to sell, lease, sell and otherwise distribute Compliant Portions; provided, however, that such agreement to license will not extend: (a) to any part or function of a product in which a Compliant Portion is incorporated that is not itself part of the Compliant Portion; (b) to a Member that has withdrawn from participation in the Corporation under Section 2.3, above, or its Affiliates; or (c) to any Member or its Affiliates, if that other Member or its Affiliates is not making a reciprocal grant to the granting Member and its Affiliates (see Section 4, below). For the avoidance of doubt, the foregoing license includes the distribution by the Member's (or its Affiliates') distributors, and the use by the Member's (or its Affiliates') customers, of such licensed Compliant Portions.

### ***SECTION 4. RECIPROCITY***

The provisions of Section 3 concerning the grant of licenses by a Member and its Affiliates will not be effective as to any other Member or that other Member's Affiliates, if that other Member or its Affiliates do not, in fact and practice, reciprocate fully by making the license grant of Section 3 available to the granting Member and its Affiliates with respect to such Compliant Portion.

### ***SECTION 5. RETENTION OF RIGHTS***

Nothing contained in this Intellectual Property Rights Policy requires a Member or its Affiliates to grant or withhold any license or sublicense of an individual Member's patents containing Necessary Claims to non-Members.

### ***SECTION 6. NO OTHER LICENSE***

The Members agree that no license, immunity or other right is granted or may otherwise arise under this Intellectual Property Rights Policy by any Member or its Affiliates to any other Members or their Affiliates or to the Corporation, either directly or by implication, estoppel, or otherwise, other than the agreements to grant licenses expressly set forth herein.

### ***SECTION 7. TRANSFER OF NECESSARY CLAIMS***

Each Member agrees that it will not assign or transfer, and has not assigned or transferred, patents or published patent applications having Necessary Claims for the purpose of circumventing such Member's obligations under this Intellectual Property Rights Policy. In the event a Member assigns or transfers a patent or published patent application containing Necessary Claims, the Member agrees to condition the assignment or transfer on the assignee's or transferee's agreement: (a) that such patents or published patent applications will continue to be subject to the licensing provisions of Section 3, above; and (b) to obligate subsequent assignees or transferees to similarly respect this obligation.

#### ***SECTION 8. SURVIVAL OF AGREEMENT TO GRANT LICENSE***

Notwithstanding the dissolution of the Corporation or a Member's termination, withdrawal, or non-renewal of its participation in the Corporation and except as provided in Section 9, a Member's agreement to grant a license as provided in Section 3 will remain in full force and effect for: (a) any Necessary Claim to a Contribution made to a later adopted Final Specification or any Necessary Claim to a Final Specification adopted before the effective date of dissolution or before the effective date of a Member's termination, withdrawal, or expiration of participation; and (b) any Necessary Claims to a Final Specification adopted by the Corporation after the effective date of the Member's termination, withdrawal or expiration of participation that are necessary for the future Final Specification to be backwards compatible with the Final Specifications subject to (a), above, provided that subject matter licensed under the new Final Specification are used in a substantially similar manner and to a substantially similar extent with a substantially similar result as the subject matter under the prior Final Specification for which the Member is obligated to grant licenses. In no event is a withdrawn, terminated, or nonrenewed Member obligated to license any additional Necessary Claims under this Section 8. A withdrawn, terminated, or nonrenewed Member and its Affiliates will remain entitled to reciprocity pursuant to Section 4 so long as that withdrawn, terminated, or nonrenewed Member remains obligated to license any Necessary Claims under this Section 8. This agreement to the survival of reciprocal licensing will extend to all Members and their Affiliates, including Members who become Members after the effective date of a departing Member's termination, withdrawal or nonrenewal.

#### ***SECTION 9. RIGHT TO MAKE VOLUNTARY DISCLOSURES OF NECESSARY CLAIMS***

Nothing in this Intellectual Property Rights Policy will be construed as prohibiting the Members from voluntarily disclosing the presence of Necessary Claims of such Member or its Affiliates that are found in Draft Specifications or Final Specifications. Such disclosure will not, however, be deemed as a waiver of that Member's rights under Section 2, above. Other than as specifically set forth herein, nothing in this Intellectual Property Rights Policy requires a Member to disclose or otherwise identify Necessary Claims of such Member or its Affiliates.

#### ***SECTION 10. DEFENSIVE SUSPENSION***

If any Member or an Affiliate of any Member ("Defendants") is sued for patent infringement by another Member or its Affiliates ("Plaintiff"), then the license(s) granted to by the Defendant to the Plaintiff may be suspended ("Defensive Suspension"), and Defendants will be entitled to withhold the grant of any further licenses under any of their Necessary Claims to the Plaintiff, until the patent infringement suit is finally resolved in a manner giving Defendants the royalty free licensed rights set forth in Section 3.

#### ***SECTION 11. OBLIGATION OF GOOD FAITH***

The Members acknowledge and agree that the obligations of this Intellectual Property Rights Policy will be governed by the principles of good faith and fair dealing.

**CERTIFICATE OF SECRETARY**

I hereby certify:

That I am the duly appointed Secretary of the Open Networking Foundation, an Oregon nonprofit corporation; and

The foregoing Intellectual Property Rights Policy, comprising five (5) pages, including this page, constitute the duly adopted Intellectual Property Rights Policy of the Open Networking Foundation as duly adopted by the Board of Directors of said Corporation, effective July 1, 2016.

IN WITNESS WHEREOF, I have hereunder subscribed my name this 27th day of June, 2016.

Masahisa Kawashima

Name

M. Kawashima

Signature