OPEN NETWORKING FOUNDATION

FAQ REGARDING
LICENSING & INTELLECTUAL PROPERTY TERMS FOR
SOFTWARE PROJECTS AND SPECIFICATIONS

1. **What is the difference between a Final Specification and a software project?**

A Final Specification is a document that has been adopted by the ONF Board of Directors in accordance with the procedures set forth in Section 2 of the ONF Intellectual Property Rights Policy (the "**IPR Policy**"), after an ONF Technical Working Group has recommended it for adoption and the ONF Members have been provided with sixty days to review the document. A list of ONF published Final Specifications is available at www.opennetworking.org/software-defined-standards/specifications/. ONF's work on OpenFlow® and on Reference Designs are being published as Final Specifications. More on Reference Designs can be found here: www.opennetworking.org/reference-designs/.

An ONF software project is the ongoing development of one or more software programs by a community of developers hosted by ONF. ONF software projects include (but are not limited to) Aether™, COMAC™, CORD®, ODTN™, OIM&T™, ONOS®, OTCC™, P4®, SD-RAN™, SEBA™, Stratum™, Trellis™, VOLTHA™ and XOS™. New ONF software projects typically are released to open source under the Apache License Version 2.0 ("**Apache License 2.0**"). Projects can be found at www.opennetworking.org.

2. **What IP-related terms govern Final Specifications?**

Final Specifications are governed by the ONF IPR Policy and ONF Bylaws. In general, Final Specifications are not software projects, and therefore are not governed by the Apache License 2.0 or the ONF Individual or Institutional Contributor License Agreement (the "**CLA**"). However, please see *FAQ 4 - Can software projects and Final Specifications overlap?*

3. **What IP-related terms govern ONF software projects?**

All ONF software projects are governed by the Apache License 2.0.

Contributions to all open source software projects are further governed by the CLA that each Contributor is required to agree to in order to submit Contributions to software projects. The output of software projects is not usually subject to the IPR Policy because software projects are not usually adopted as "Final Specifications" in accordance with the IPR Policy. However, please see *FAQ 4 - Can software projects and Final Specifications overlap?*

4. **Can software projects and Final Specifications overlap? If so, what IP-related terms are they governed by?**

ONF software projects and Final Specifications can overlap. For example, some portions of software projects (e.g., code or documentation) may be incorporated into a Final Specification. Conversely, portions of ONF software projects may implement Final Specifications. Portions that are common to both a software project and a Final Specification would be subject to the IPR Policy, the CLA, and to the Apache License 2.0.

5. What are key similarities and differences between the IP-related terms governing specifications and software projects?

COMPARISON CHART

	ONF Bylaws and IPR Policy	Apache License 2.0 and CLA
Scope and Application	"Final Specifications" adopted in accordance with ONF IPR Policy	ONF open source software projects
Contracting Parties	ONF, ONF Members, and their Affiliates	Contributors, ONF, and anyone who receives a copy of the software
Patent License	A royalty-free patent license under patent claims that are necessarily infringed by implementation of the Final Specification is granted by all ONF Members and their Affiliates to other ONF Members and their Affiliates.	A royalty-free license under patent claims that are necessarily infringed by a Contributor's Contribution (alone or combined with the rest of the software project) are licensed by each Contributor to anyone who receives a copy of the software.
Copyright License	A royalty-free copyright license for the sole purpose of developing and publishing copyrightable works on behalf of ONF is granted by Members and their Affiliates to ONF and other Members and their Affiliates.	A broad royalty-free copyright license is granted by Contributors to anyone who receives a copy of the software.
Access Rights	"Draft Specifications" are available only to ONF Member companies. Once approved by the ONF Board, "Draft Specifications" are designated as "Final Specifications", at which point they are made publicly available	ONF Open Source Software Projects licensed under the Apache License 2.0 are publicly accessible.
Notes	ONF's IPR policy is rarely used given ONF's current operating model. See section 8 for more details.	

6. Am I bound by the software license and CLA if I do not contribute to an open source software project?

If you do not contribute to a particular open source software project, you would not be bound as a "Contributor" by the CLA or the software license with respect to such software project, and you would not be obligated to grant the licenses set forth in the CLA or software license with respect to such software project. If you do not contribute to a software project but you download and use software associated with that project, you would be bound by the Apache License 2.0 solely as a licensee.

7. Am I bound by the IPR Policy if I do not contribute to a Final Specification?

The IPR Policy applies to all Members and their Affiliates, regardless of whether they make contributions to Final Specifications. If a Member or their Affiliate is unwilling to grant the licenses set forth in Section 3 of the IPR Policy with respect to any Draft Specification, they must provide notice of a licensing objection or notice that they are withdrawing from ONF membership during the sixty-day review period for such Draft Specification prior to it being

adopted as a Final Specification. If notice of a licensing objection or withdrawal is not filed during such a sixty-day review period, the Member and its Affiliates will be bound by the licensing provisions of the IPR Policy if and when the Draft Specification is adopted as a Final Specification.

8. The IPR Policy Rarely Applies to ONF's Current Work

ONF first created its IPR policy when its original mission was the publication of OpenFlow specifications. Since 2016, ONF's work has shifted predominantly towards the creation of open source software, and the IPR policy does not apply to ONF open source work.

Given this shift in ONF's mission, ONF's IPR policy very rarely applies given ONF's current operating model. The IPR policy only applies to 'Final Specifications', and currently only the SEBA Reference Design continues to be advanced as a Final Specification. Furthermore, our IPR Policy only applies to intellectual property concerning "interfaces and protocols for server control of switches" (see section 1.5 of the IPR Policy), meaning the policy would not apply to any work that appears in a Final Specification that is not described by this bounding description. And finally, if Final Specifications are approved by the ONF Board, there is a notice to all Members and a 60 day review period (see section 2 of the IPR Policy) before taking effect, so application of the IPR policy to new work would never take place without due notification.

9. ONF and Standard Essential Patents (SEPs)

Standard Essential Patents (SEPs) are patents that are unavoidable for the implementation of a standardized technology.

The majority of ONF's work takes place in open source (rather than as standardization activities), and ONF's CLA requires all software code contributions be covered by a royalty free license by the contributor.

Where ONF engages in standardization activities, ONF requires RAND-Z licensing (Reasonable and Non-Discriminatory Zero-fee licensing) by all ONF member companies who may hold patents deemed essential under ONF's standardization activities. Specifically, a RAND-Z license obligation exists between all ONF member companies for any technologies that are or may become essential under any ONF 'Final Specification'. See the ONF IPR policy for more details.

Certain Standard Development Organizations (SDOs), notably 3GPP in the mobile space, require FRAND (which stands for Fair, Reasonable and Non-Discriminatory) licensing assurance from their members, in essence requiring all member organizations to commit to license any patents that are or may become essential to the implementation of a standard at a reasonable fee.

Should ONF's open source software require the use of other standards (e.g. 3GPP standards) that are subject to SEPs, it is the responsibility of any commercial entity using ONF's software to work directly with any patent holders to resolve any commercial issues. With this view, it is ONF's position that ONF's work does not alter any SEP relationships between commercial entities or introduce new FRAND SEP obligations into the ecosystem.

DISCLAIMER - this FAQ answer shall not supersede any of ONF's IPR and licensing terms, and ONF does not make any warranty as to the accuracy of these statements as they apply to other organizations' IPR, licensing SEP policies.

10. Where can I find out more about the ONF IPR Policy?

The IPR policy and additional information can be found at: http://www.opennetworking.org/organizational-documents/

11. Where can I find out more about the Apache License 2.0?

Additional FAQs regarding the Apache License 2.0 are available at www.apache.org/foundation/license-faq.