

# OpenChain Specification

Version 1.2 pc3 (DRAFT)

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**DRAFT:** This is the near final draft of the 1.2 version of the OpenChain Specification. We have recently completed the final round of feedback from the OpenChain community. It is now being circulated more broadly for public comments as the final step which will conclude on April 14<sup>th</sup> 2018. You can send your feedback to project mailing list at:

[Openchain-specification@lists.linuxfoundation.org](mailto:Openchain-specification@lists.linuxfoundation.org)

A summary of the changes made over the previous version (1.1) of the specification can be found on page 3. If you are new to OpenChain and would like obtain a better understanding of the goals and the context in which the Specification was developed, we recommend you start by reviewing the specification FAQs found at:

<https://wiki.linuxfoundation.org/openchain/specification-questions-and-answers>

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## 0) Update Change Log (temporary section)

We provide a summary of changes made to version 1.1 of the Specification. This is a temporary section that will be removed from the specification in the final version.

- The marked up version can be found here:  
<https://wiki.linuxfoundation.org/media/openchain/openchainspec-1.2.markup.draft.pdf>
- Changes version number from 1.1 to 1.2
- Section tags where change from G1 - G6 to Goal 1 – Goal 6 to be more explicitly representative of what the G stands for.
- Added definition **Compliance Artifacts**.
- Reworking the definition for **Identified Licenses**. It was been pointed out that the definition seemed to be i) potentially circular and having two different meanings based on its usage in sections 1, 3 and 4.
- Updates the definition term “**OpenChain Conforming**” to “**OpenChain Conforming Program**”
- Changed the term **Verification Artifact(s)** to **Verification Material(s)** to eliminate confusion with the term **Compliance Artifacts**.
- Added definition for **Compliance Artifacts** which represents the output of a FOSS compliance program.
- “External” added to:
  - 2.1 **Identify External FOSS Liaison Function (“FOSS Liaison”)**.  
To clarify confusion over section 2.2 that discusses an internal role.
- In section 1.2.3 we clarified what by what was meant my being Current with the training requirement.
- In section 1.2.3 we clarified that the **85% trained** does not need to apply to an entire organization but instead to all those involved in the creation and distribution of a Supplied Software release.
- Added reference to the Specification FAQ in the Introduction section to provide additional insights on how to understand the specification.
- One of the language translators pointed out that Verification Materials are typically things (nouns) - for example in 1.1.1 and 1.1.2, the items listed are in fact documents (things) as opposed to each representing *an attestation that the thing exists*. To make it clear that it is about the “thing” and not an “attestation of its existence” we removed the word “exists” (e.g. **exists**) from all the Verification Material(s) sections that made reference to things.
- In section 6.1 we capitalized “Certified” because “OpenChain Certified” should be a proper noun (given its importance).
- Several dozen wordsmithing edits where made to improve the clarity and precision of the text.

## 1) Introduction

The OpenChain Initiative began in 2013 when a group of software supply chain open source practitioners observed two emerging patterns: 1) significant process similarities existed among organizations with mature open source compliance programs; and 2) there still remained a large number of organizations exchanging software with less developed programs. The latter observation resulted in a lack of trust in the consistency and quality of the Compliance Artifacts accompanying the software being exchanged. As a consequence, at each tier of the supply chain, downstream organizations were frequently redoing the compliance work already performed by other upstream organizations.

A study group was formed to consider whether a standard program specification could be created that would: i) facilitate greater quality and consistency of open source compliance information being shared across the industry; and ii) decrease the high transaction costs associated with open source resulting from compliance rework. The study group evolved into a work group, and in April 2016, formally organized as a Linux Foundation collaborative project.

The Vision and Mission of the OpenChain Initiative are as follows:

- **Vision:** A software supply chain where free/open source software (FOSS) is delivered with trustworthy and consistent compliance information.
- **Mission:** Establish requirements to achieve effective management of free/open source software (FOSS) for software supply chain participants, such that the requirements and associated collateral are developed collaboratively and openly by representatives from the software supply chain, open source community, and academia.

In accordance with the Vision and Mission, this specification defines a set of requirements that if met, would significantly increase the probability that an open source compliance program had achieved a sufficient level of quality, consistency and completeness; although a program that satisfies all the specification requirements does not guarantee full compliance. The requirements represent a base level (minimum) set of requirements a program must satisfy to be considered OpenChain Conforming. The specification focuses on the “what” and “why” qualities of a compliance program as opposed to the “how” and “when” considerations. This ensures a practical level of flexibility that enables different organizations to tailor their policies and processes to best fit their objectives.

Section 2 introduces definitions of key terms used throughout the specification. Section 3 presents the specification requirements where each one has a list of one or more Verification Artifacts. They represent the evidence that must exist in order for a given requirement to be considered satisfied. If all the requirements have been met for a given program, it would be considered OpenChain Conforming in accordance with version 1.2 of the specification. Verification ~~Artifacts~~ Materials are not intended to be public, but could be provided under NDA or upon private request from the OpenChain organization to validate conformance.

Additional clarification on how to interpret the specification can be obtained by reviewing the Specification Frequently Asked Questions (FAQs) located at:  
<https://www.openchainproject.org/specification-faq>

## 2) Definitions

**Compliance Artifacts** - a collection of artifacts which represent the output of the FOSS management program for a given Supplied Software release. The collection may include (but are not limited to) one or more of the following: source code, attribution notices, copyright notices, copy of licenses, modification notifications, written offers, SPDX documents and so forth.

**FOSS** (Free and Open Source Software) - software subject to one or more licenses that meet the Open Source Definition published by the Open Source Initiative (OpenSource.org) or the Free Software Definition (published by the Free Software Foundation) or similar license.

**FOSS Liaison** - a designated person who is assigned to receive external FOSS inquiries.

**Identified Licenses** - a set of FOSS licenses identified as a result of following an appropriate method of identifying ~~licenses that govern the Supplied Software~~ such licenses.

**OpenChain Conforming Program** - a program that satisfies all the requirements of this specification.

**Software Staff** - any employee or contractor that defines, contributes to or has responsibility for preparing Supplied Software. Depending on the organization, that may include (but is not limited to) software developers, release engineers, quality engineers, product marketing and product management.

**SPDX** or Software Package Data Exchange - the format standard created by the SPDX Working Group for exchanging license and copyright information for a given software package. A description of the SPDX specification can be found at [www.spdx.org](http://www.spdx.org).

**Supplied Software** - software that an organization delivers to third parties (e.g., other organizations or individuals).

**Verification ~~Artifacts~~ Materials** - evidence that must exist in order for a given requirement to be considered satisfied.

### 3) Requirements

#### **G-Goal 1: Know Your FOSS Responsibilities**

**1.1 A written FOSS policy exists that governs FOSS license compliance of the Supplied Software distribution.** The policy must be internally communicated.

**Verification ~~MaterialArtifact~~(s):**

- 1.1.1 A documented FOSS policy ~~exists~~.
- 1.1.2 A documented procedure ~~exists~~ that makes all Software Staff aware of the existence of the FOSS policy (e.g., via training, internal wiki, or other practical communication method).

**Rationale:**

Ensure steps were taken to create, record and make Software Staff aware of the existence of a FOSS policy. Although no requirements are provided here on what should be included in the policy, other sections may impose requirements on the policy.

**1.2 Mandatory FOSS training for all Software Staff exists such that:**

- **The training, at a minimum, covers the following topics:**
  - The FOSS policy and where to find a copy;
  - Basics of Intellectual Property law pertaining to FOSS and FOSS licenses;
  - FOSS licensing concepts (including the concepts of permissive and copyleft licenses);
  - FOSS project licensing models;
  - Software Staff roles and responsibilities pertaining to FOSS compliance specifically and the FOSS policy in general; and
  - Process for identifying, recording and/or tracking of FOSS components contained in Supplied Software.
- **Software Staff must have completed FOSS training within the last 24 months ~~to be considered~~ current ("Currently Trained").** A test may be used to allow Software Staff to satisfy the training requirement.

**Verification ~~MaterialArtifact~~(s):**

- 1.2.1 FOSS training materials covering the above topics ~~exists~~ (e.g., slide decks, online course, or other training materials).
- 1.2.2 Method of tracking the completion of the training for all Software Staff.
- 1.2.3 At least 85% of the Software Staff are Current Trained, as per the definition above. The 85% may not necessarily apply to the entire organization, but to the totality of those specifically responsible for the design, development and delivery of each Supplied Software release reviewed under an OpenChain Conforming Program. That is, all of the Software Staff participating in the conforming program represents 100% current, as per the definition in above section.

**Rationale:**

Ensure the Software Staff have recently attended FOSS training and that a core set of relevant FOSS topics ~~are-were~~ covered in the training. The intent is to ensure a core base level set of

topics are covered but a typical training program would likely be more comprehensive than what is required here.

**1.3 A process exists for reviewing the Identified Licenses to determine the obligations, restrictions and rights granted by each license.**

**Verification ~~MaterialArtifact~~(s):**

- 1.3.1 A documented procedure ~~exists~~ to review and document the obligations, restrictions and rights granted by each Identified License ~~governing the Supplied Software~~.

**Rationale:**

To ensure a process exists for reviewing and identifying the license obligations for each Identified License for the various use cases.

## **G-Goal 2: Assign Responsibility for Achieving Compliance**

### **2.1 Identify External FOSS Liaison Function ("FOSS Liaison").**

- Assign individual(s) responsible for receiving external FOSS inquiries;
- FOSS Liaison must make commercially reasonable efforts to respond to FOSS compliance inquiries as appropriate; and
- Publicly identify a means by which one can contact the FOSS Liaison.

#### **Verification MaterialArtifact(s):**

- 2.1.1 Publicly visible identification of FOSS Liaison ~~FOSS Liaison function is publicly identified~~ (e.g., via a published contact email address, or the Linux Foundation's Open Compliance Directory).
- 2.1.2 An internal documented procedure ~~exists~~ that assigns responsibility for receiving FOSS compliance inquiries.

#### **Rationale:**

Ensure there is a reasonable way for third parties to contact the organization with regard to FOSS compliance inquiries and that this responsibility has been effectively assigned.

### **2.2 Identify Internal FOSS Compliance Role(s).**

- Assign individual(s) responsible for managing internal FOSS compliance. The FOSS Compliance role and the FOSS Liaison may be the same individual.
- FOSS compliance management activity is sufficiently resourced:
  - Time to perform the role has been allocated; and
  - Commercially reasonable budget has been allocated.
- Assign responsibilities to develop and maintain FOSS compliance policy and processes;
- Legal expertise pertaining to FOSS compliance is accessible to the FOSS Compliance role (e.g., could be internal or external); and
- A process exists for the resolution of FOSS compliance issues.

#### **Verification MaterialArtifact(s):**

- 2.2.1 Name of persons, group or function in FOSS Compliance role(s) internally identified.
- 2.2.2 ~~Identify source of~~Identification of legal expertise available to FOSS Compliance role(s) which could be internal or external.
- 2.2.3 A documented procedure ~~exists~~ that assigns internal responsibilities for FOSS compliance.
- 2.2.4 A documented procedure ~~exists~~ for handling the review and remediation of non-compliant cases.

#### **Rationale:**

Ensure certain FOSS responsibilities have been effectively assigned.



### **Goal 3: Review and Approve FOSS Content**

**3.1 A process exists for creating and managing a FOSS component bill of materials which includes each component (and its Identified Licenses) in a Supplied Software release.**

**Verification MaterialArtifact(s):**

- 3.1.1 A documented procedure ~~exists~~ for identifying, tracking and archiving information about the collection of FOSS components from which a Supplied Software release is comprised.
- 3.1.2 FOSS component records ~~exist~~ for each Supplied Software release which demonstrates the documented procedure was properly followed.

**Rationale:**

To ensure a process exists for creating and managing a FOSS component bill of materials used to construct the Supplied Software. A bill of materials is needed to support the systematic review of each component's license terms to understand the obligations and restrictions as it applies to the distribution of the Supplied Software.

**3.2 The FOSS management program must be capable of handling common FOSS license use cases encountered by Software Staff for Supplied Software, which may include the following use cases (note that the list is neither exhaustive, nor may all of the use cases apply):**

- distributed in binary form;
- distributed in source form;
- integrated with other FOSS such that it may trigger copyleft obligations;
- contains modified FOSS;
- contains FOSS or other software under an incompatible license interacting with other components within the Supplied Software; and/or
- contains FOSS with attribution requirements.

**Verification MaterialArtifact(s):**

- 3.2.1 A procedure ~~has been implemented~~ that handles the common FOSS license use cases for the FOSS components of each Supplied Software release.

**Rationale:**

To ensure the program is sufficiently robust to handle an organization's common FOSS license use cases. That a procedure exists to support this activity and that the procedure is followed.

## **G-Goal 4: Deliver FOSS Content Documentation and Artifacts**

**4.1** Prepare the set of artifacts which represent the output of the FOSS management program for each Supplied Software release. This set is referred to as the Compliance Artifacts which may include (but are not limited to) one or more of the following: source code, attribution notices, copyright notices, copy of licenses, modification notifications, written offers, SPDX documents and so forth.

### **Verification ~~Material~~Artifact(s):**

- 4.1.1 A documented procedure ~~exists~~ that ensures the Compliance Artifacts are prepared and distributed with Supplied Software release as required by the Identified Licenses.
- 4.1.2 Copies of the Compliance Artifacts of the Supplied Software release are archived and easily retrievable, and the archive is planned to exist for at least as long as the Supplied Software is offered or as required by the Identified Licenses (whichever is longer).

### **Rationale:**

Ensure the complete collection of Compliance Artifacts accompany the Supplied Software as required by the Identified Licenses that govern the Supplied Software along with other reports created as part of the FOSS review process.

## **Goal 5: Understand FOSS Community Engagement**

**5.1 A written policy exists that governs contributions to FOSS projects by the organization. The policy must be internally communicated.**

**Verification ~~MaterialArtifact~~(s):**

- 5.1.1 A documented FOSS contribution policy ~~exists~~;
- 5.1.2 A documented procedure ~~exists~~ that makes all Software Staff aware of the existence of the FOSS contribution policy (e.g., via training, internal wiki, or other practical communication method).

**Rationale:**

Ensure an organization has given reasonable consideration to developing a policy with respect to publicly contributing to FOSS. The FOSS contribution policy can be made a part of the overall FOSS policy of an organization or be its own separate policy. In the situation where contributions are not permitted at all, a policy should exist making that position clear.

**5.2 If an organization permits contributions to FOSS projects then a process must exist that implements the FOSS contribution policy outlined in Section 5.1.**

**Verification ~~MaterialArtifact~~(s):**

- 5.2.1 Provided the FOSS contribution policy permits contributions, a documented procedure ~~exists~~ that governs FOSS contributions.

**Rationale:**

Ensure an organization has a documented process for how the organization publicly contributes FOSS. A policy may exist such that contributions are not permitted at all. In that situation it is understood that no procedure may exist and this requirement would nevertheless be met.

## **Goal 6: Certify Adherence to OpenChain Requirements**

**6.1 In order for an organization to be OpenChain Certified, it must affirm that it has a FOSS management program that meets the criteria described in this OpenChain Specification version 1.2.**

**Verification ~~MaterialArtifact~~(s):**

- 6.1.1 ~~An affirmation of the existence of~~The organization affirms that a FOSS management program ~~exists~~that meets all the requirements of this OpenChain Specification version 1.2.

**Rationale:**

To ensure that if an organization declares that it has a program that is OpenChain Conforming, that such program has met all the requirements of this specification. The mere meeting of a subset of these requirements would not be considered sufficient ~~to warrant a program be OpenChain certified.~~

**6.2 Conformance with this version of the specification will last 18 months from the date conformance validation was achieved. Conformance validation requirements can be found on the OpenChain project's website.**

**Verification ~~MaterialArtifact~~(s):**

- 6.2.1 The organization affirms ~~the existence of that~~a FOSS management program ~~exists~~ that meets all the requirements of this OpenChain Specification version 1.2 within the past 18 months of achieving conformance validation.

**Rationale:**

It is important for the organization to remain current with the specification if that organization ~~they want~~s to assert program conformance over time. This requirement ensures that the program's supporting processes and controls do not erode if the conforming organization ~~if they want to continue~~s to assert conformance ~~with the specification~~ over time.

## Appendix I: Language Translations

To facilitate global adoption we welcome efforts to translate the specification into multiple languages. Because OpenChain functions as an open source project translations are driven by those willing to contribute their time and expertise to perform translations under the terms of the CC-BY 4.0 license and the project's translation policy. The details of the policy and available translations can be found on the OpenChain project [specification webpage](#).