

MoxaにおけるOpen Sourceの取組み

Open Source Journey in Moxa

Build up Open Source Office in Hardware Manufacture

Company 製造業企業でのオープンソースオフィス立ち上げ

SZ Lin (林上智)

Embedded Linux Development Center,

Software Engineer

07/16/2019

MOXA®

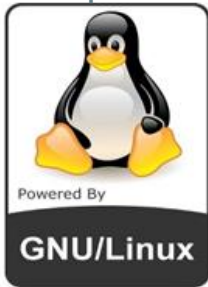
Reliable Networks ▲ Sincere Service

About Me

自己紹介

SZ LIN (林上智)

- Software Engineer at Moxa
ソフトウェア エンジニア
- CIP Technical Steering Committee member
CIP 技術ステアリングコミッティー メンバー
- Debian Developer
Debian デベロッパー
- OpenChain 2.0 Traditional Chinese Translator
OpenChain Spec2.0 繁体字版 翻訳者



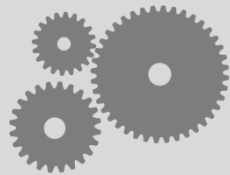
Introduction to Moxa

Moxa社紹介

Fast Facts Moxa社「早わかり」

Moxa is a leading provider of edge connectivity, industrial computing, and network infrastructure solutions for **enabling connectivity**.

Moxa社はエッジ接続, 産業用コンピューティング, NWインフラソリューション等相互接続を実現する分野を先導するプロバイダである。



30+

years of experience in industrial automation

Connecting

50+ Million

devices worldwide



Market Leadership

1

Supplier in
Serial
Connectivity

3

Supplier in
Industrial Ethernet
Infrastructure

Numerous Global Awards



red dot design award



AOW
BEST EMPLOYERS

TAIWAN | 2016

Global Presence 世界各国への展開状況



2

Headquarters

12

Branches

120+

Distributors

34%

R&D Manpower

さまざまなネットワークでの相互接続ソリューション Connectivity Solutions for Your Networks

Application



Smart Rail



Smart Grid



Smart Oil Field



Smart Transportation



Smart Factory



Smart Marine

Edge Connectivity

Serial Connectivity



I/O Connectivity



Industrial Computing

Embedded Computers



Network Infrastructure

Industrial Ethernet



Industrial Wireless LAN



Industrial Routers



Network Management



Device





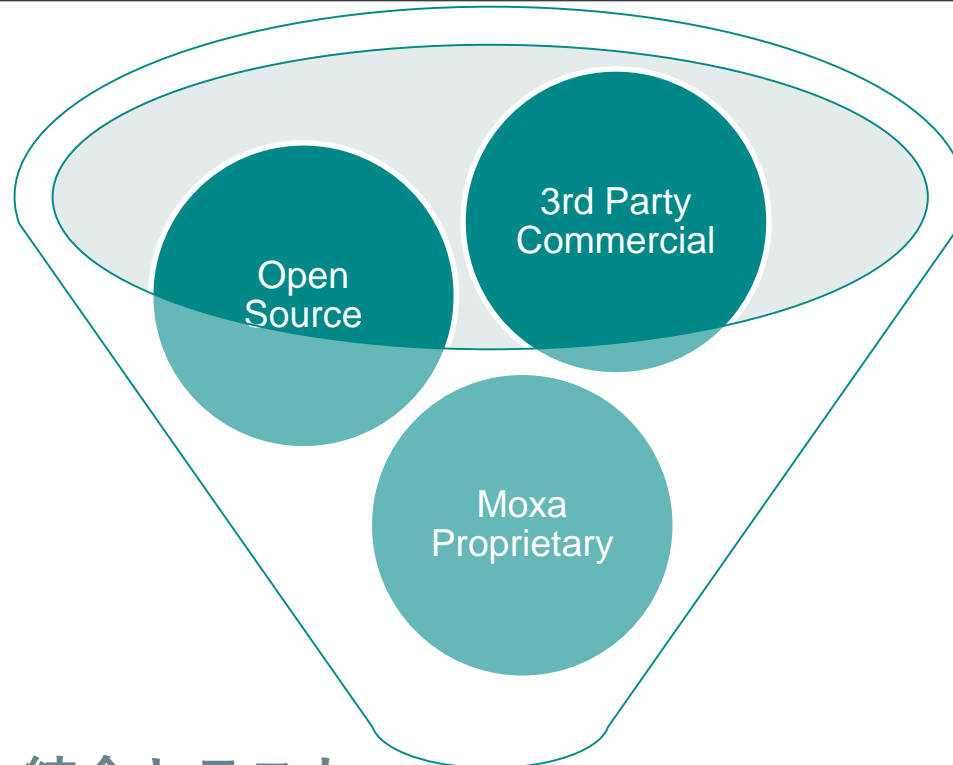
自動化制御分野における信頼できるパートナー Your Trusted Partner in Automation

Moxa has partnered with companies in many industries, and along the way we have established **trusted relationships** and a **strong reputation**



Open Source Software In Moxa

Moxa社におけるOpen Source Software



統合とテスト
Integration & Testing



提供製品・提供サービス

Final Commercial Product or Service

Serial Connectivity	I/O Connectivity	Video Connectivity	Embedded Computers	Industrial Ethernet	Industrial Wireless LAN	Industrial Routers

Moxa Joined Civil Infrastructure Platform Project



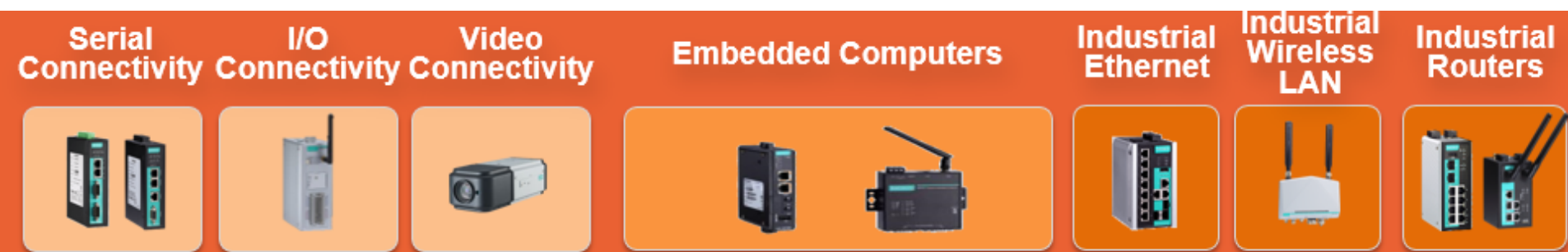
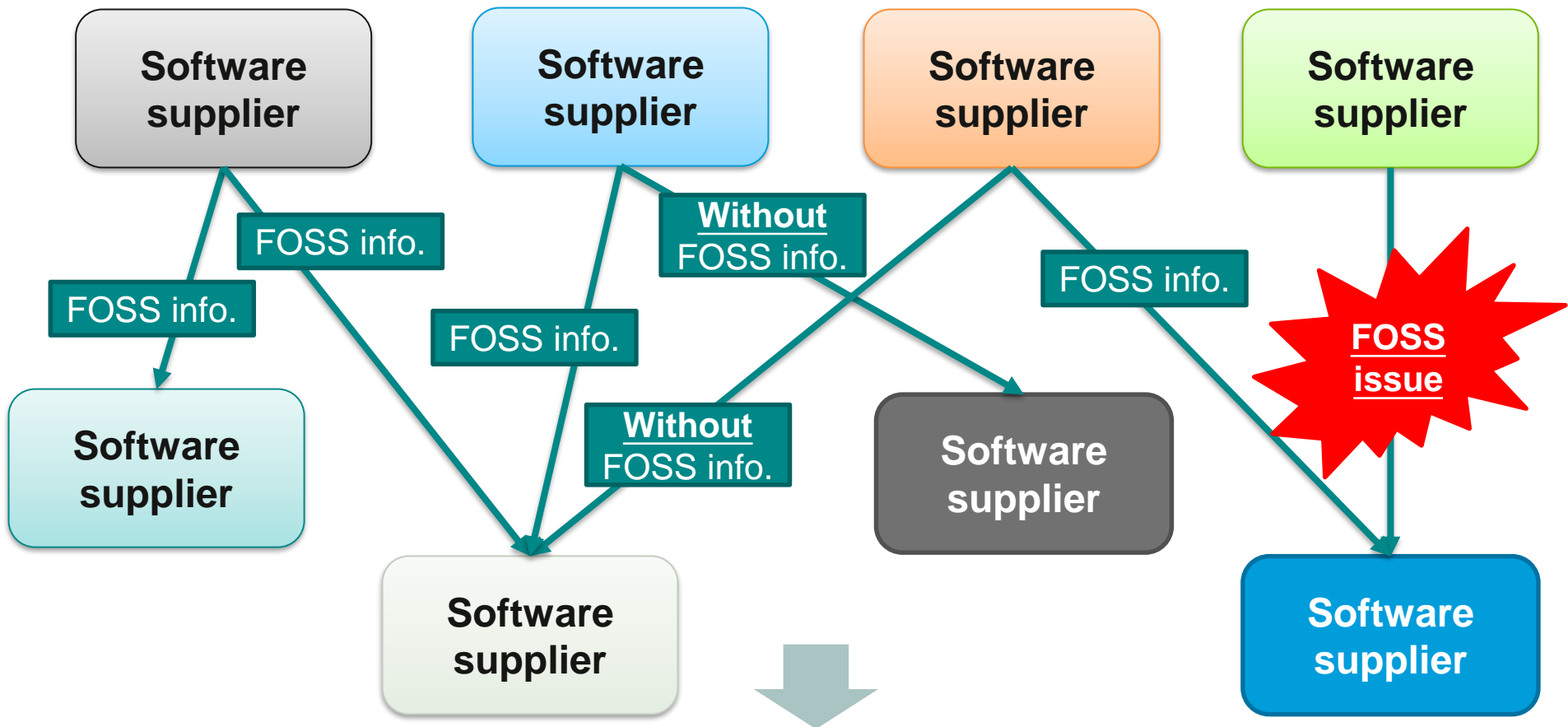
Industry Leader Moxa joins Civil Infrastructure Platform Project

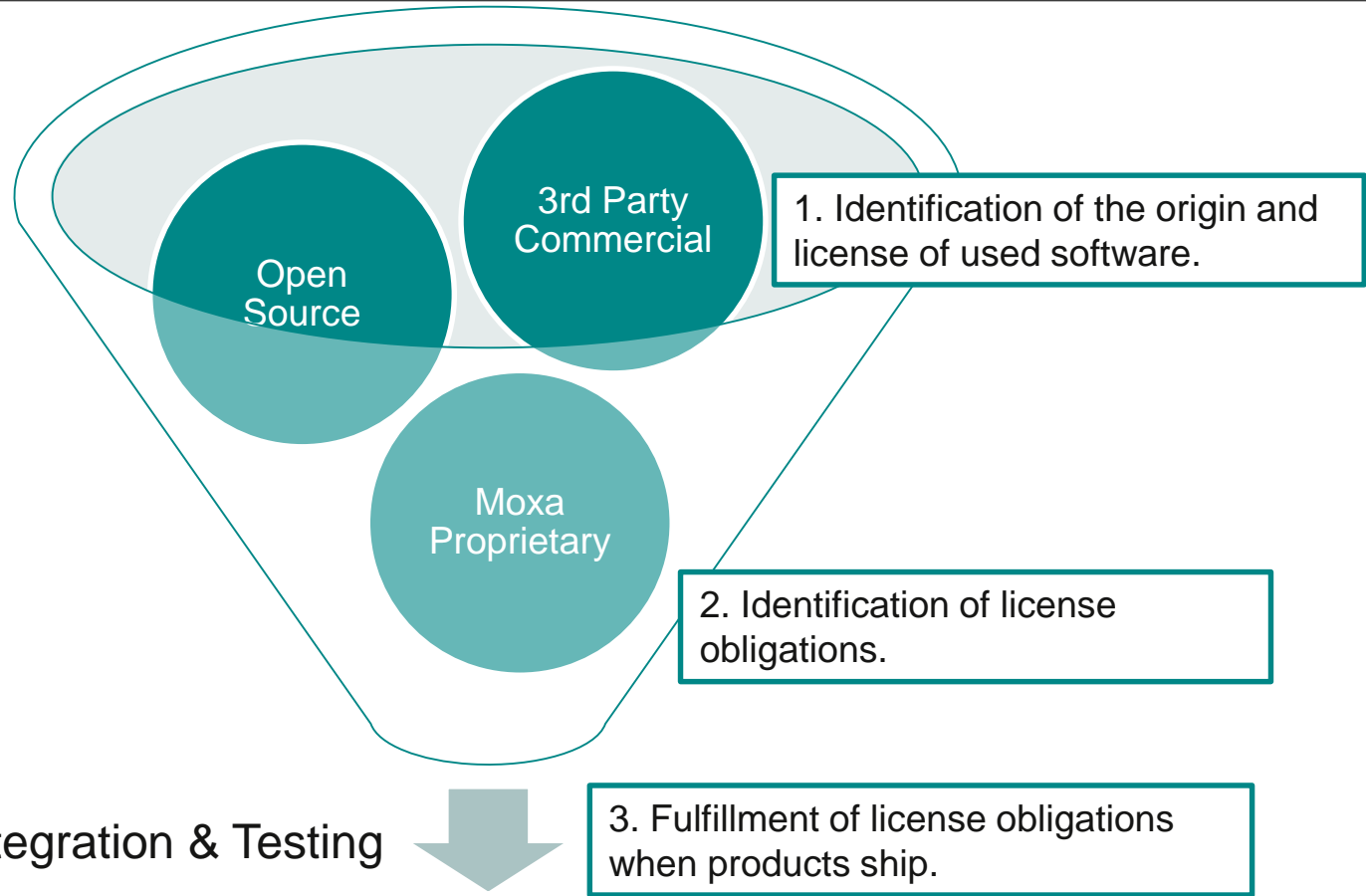
By Maemalynn Meanor | January 18, 2018

Moxa strengthens its commitment to building smart cities based on interoperable open source platform that is secure, reliable and sustainable for more than 10 years

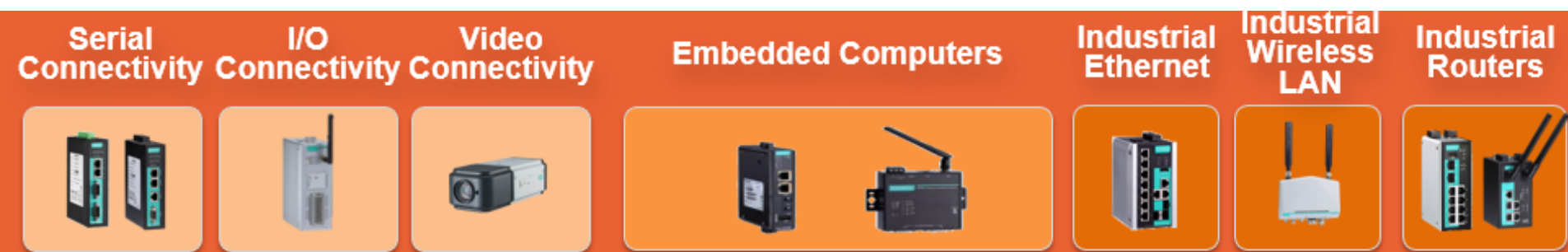
SAN FRANCISCO – January 18, 2017 – [The Civil Infrastructure Platform \(CIP\)](#) project, which aims to provide a base layer of industrial grade open source software components, tools and methods to enable long-term management of critical systems, today announced that Moxa has joined as a Silver Member. The move helps [Moxa](#), an edge-to-cloud connectivity solution provider that offers a wide range of industrial networking, monitoring and computing products, strengthen its commitment to building smarter factories and cities on an interoperable open source platform that is secure, reliable and sustainable.

Hosted by [The Linux Foundation](#), CIP aims to speed implementation of Linux-based civil infrastructure systems, build upon existing open source foundations and expertise, establish de facto standards by providing a base layer reference implementation, and contribute to and influence upstream projects regarding industrial needs.

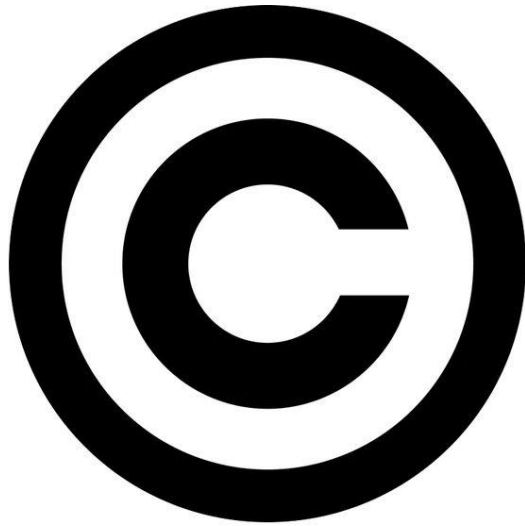




Final Commercial Product or Service



Open Source Management



Copyright

Copyright is a legal right, that grants the creator of an original work exclusive rights to determine whether, and under what conditions, this original work may be used by others

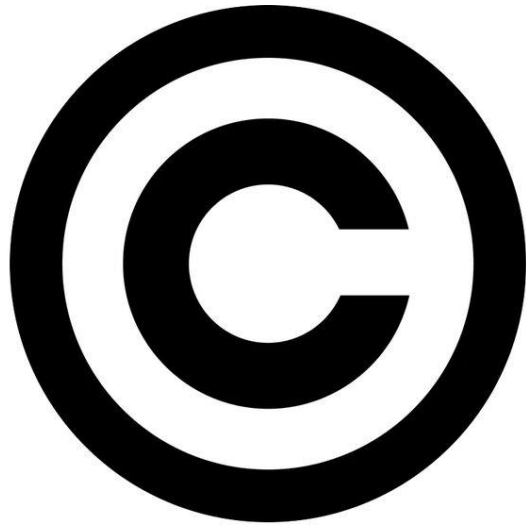
src: <https://en.wikipedia.org/wiki/Copyright>



Patent

A patent gives its owner the right to exclude others from making, using, selling, and importing an invention for a limited period of time, usually twenty years.

src: <https://en.wikipedia.org/wiki/Patent>



Copyright



Identify key recommended processes for effective open source management [1].



Patent

openinventionnetwork[®]

It is a shared defensive patent pool with the mission to protect Linux [2].

Moxa Joined OIN Community

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[About OIN](#)

[The OIN Community](#)

[Joining OIN](#)

[Community Init](#)

PRESS RELEASE DETAILS

Open Invention Network

Moxa Joins the Open Invention Network Community

July 02, 2019

Durham, NC (July 2, 2019) - Open Invention Network (OIN), the largest patent non-aggression community in history, announced today that Moxa has joined as a community member. As a leading provider of industrial edge-to-cloud connectivity solutions and computing for Industrial Internet of Things (IIoT) environments, Moxa is demonstrating its commitment to open source software (OSS) as an enabler of advanced industrial networking and communications applications.

Define Free and Open Source Policy



Moxa FOSS Policy

Moxa's Free and Open Source Policy

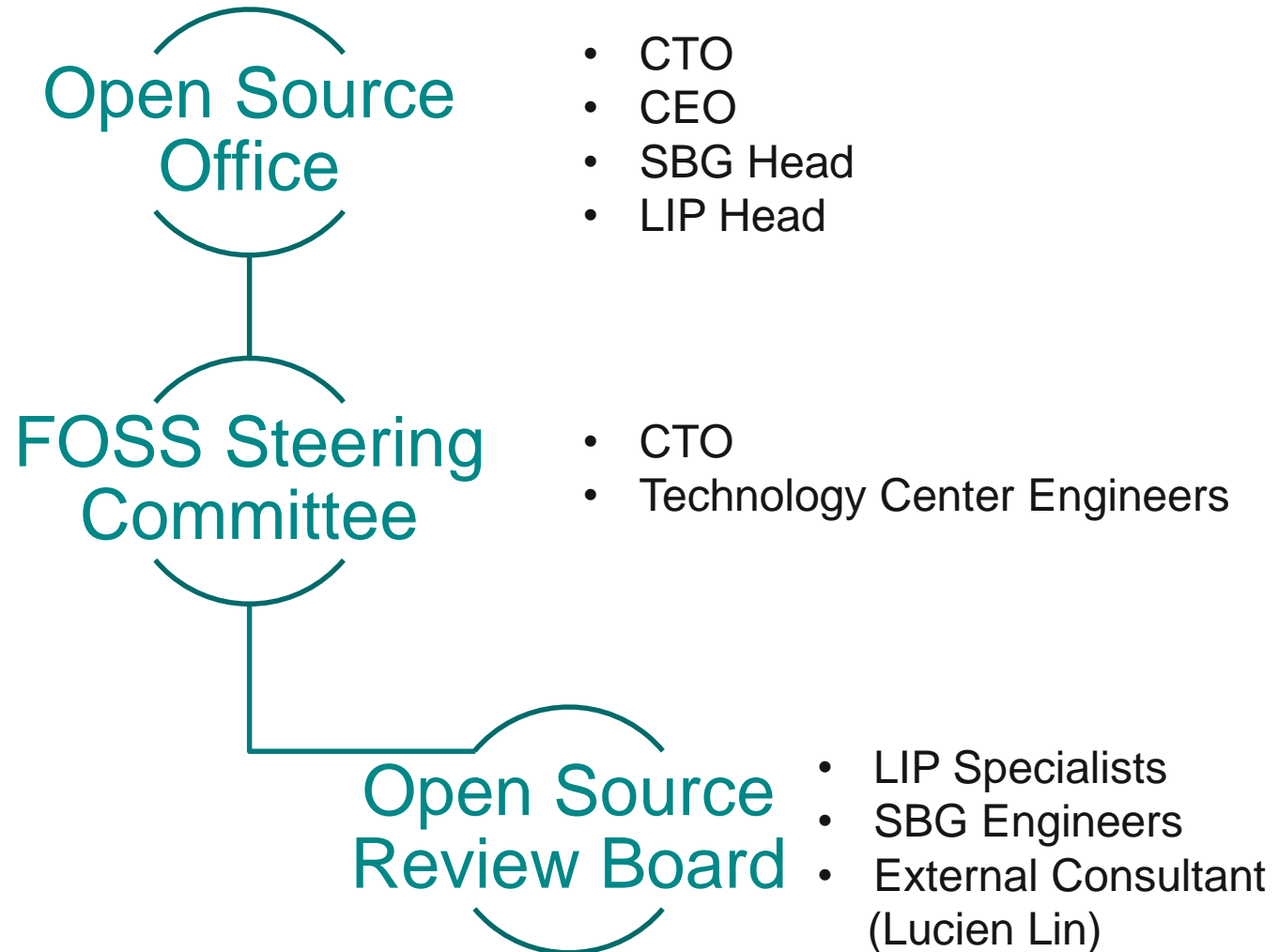
Abstract: This document defines Moxa's policy for the use of free and open source software in externally distributed products

Summary

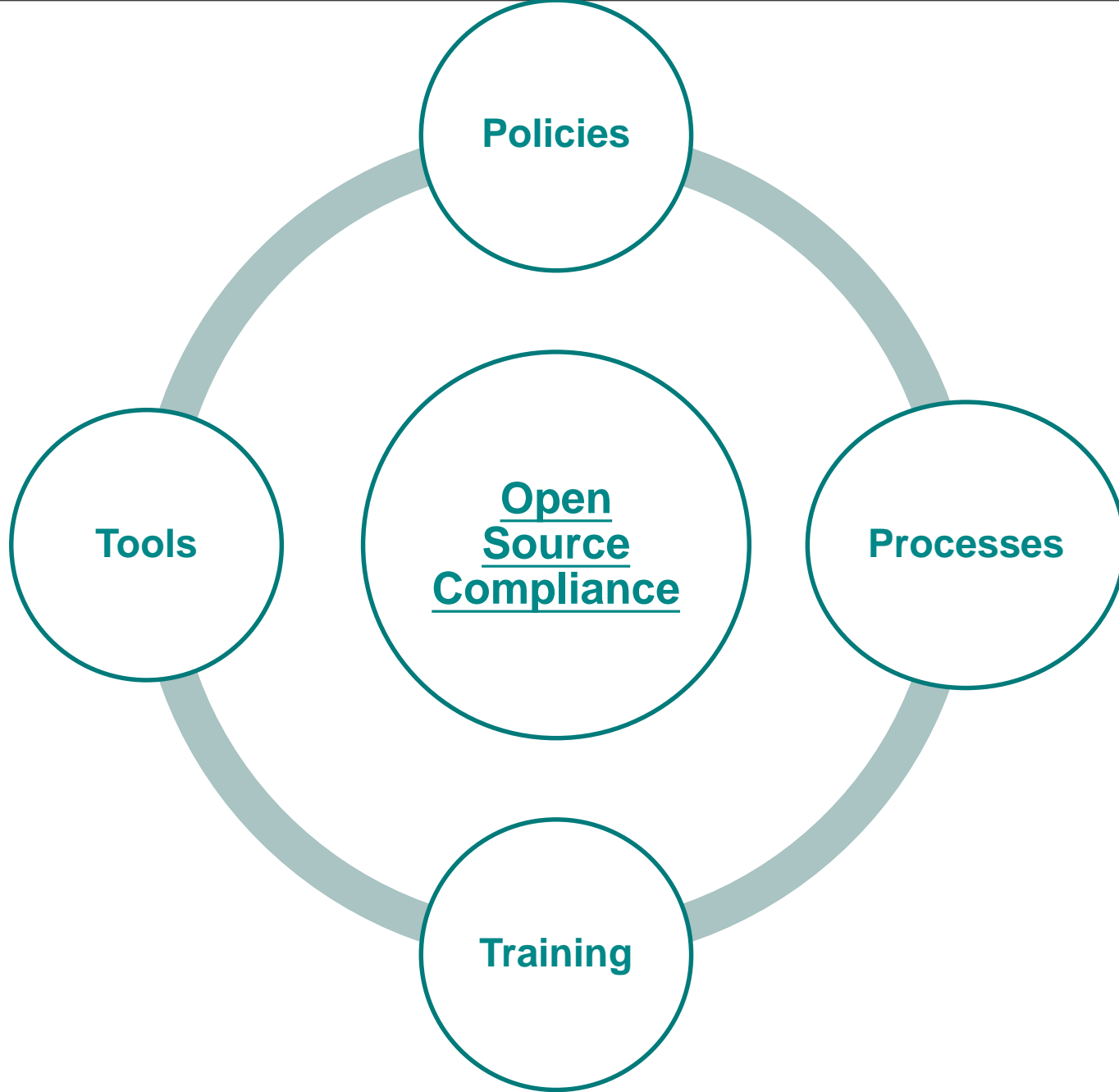
Revision	Date	Author	Description of Change
0.9	2018-11-15	SZ Lin (林上智)	An initial draft version of the policy.
0.91	2018-11-19	SZ Lin (林上智)	Remove description for creating a new license in Moxa
0.92	2018-12-04	SZ Lin (林上智)	Add a list of not allowed licenses
0.93	2018-12-26	SZ Lin (林上智)	Modify email address

All questions about this policy should direct to FOSS@moxa.com

OSS Office Organization in Moxa



Overview of OpenChain Specification



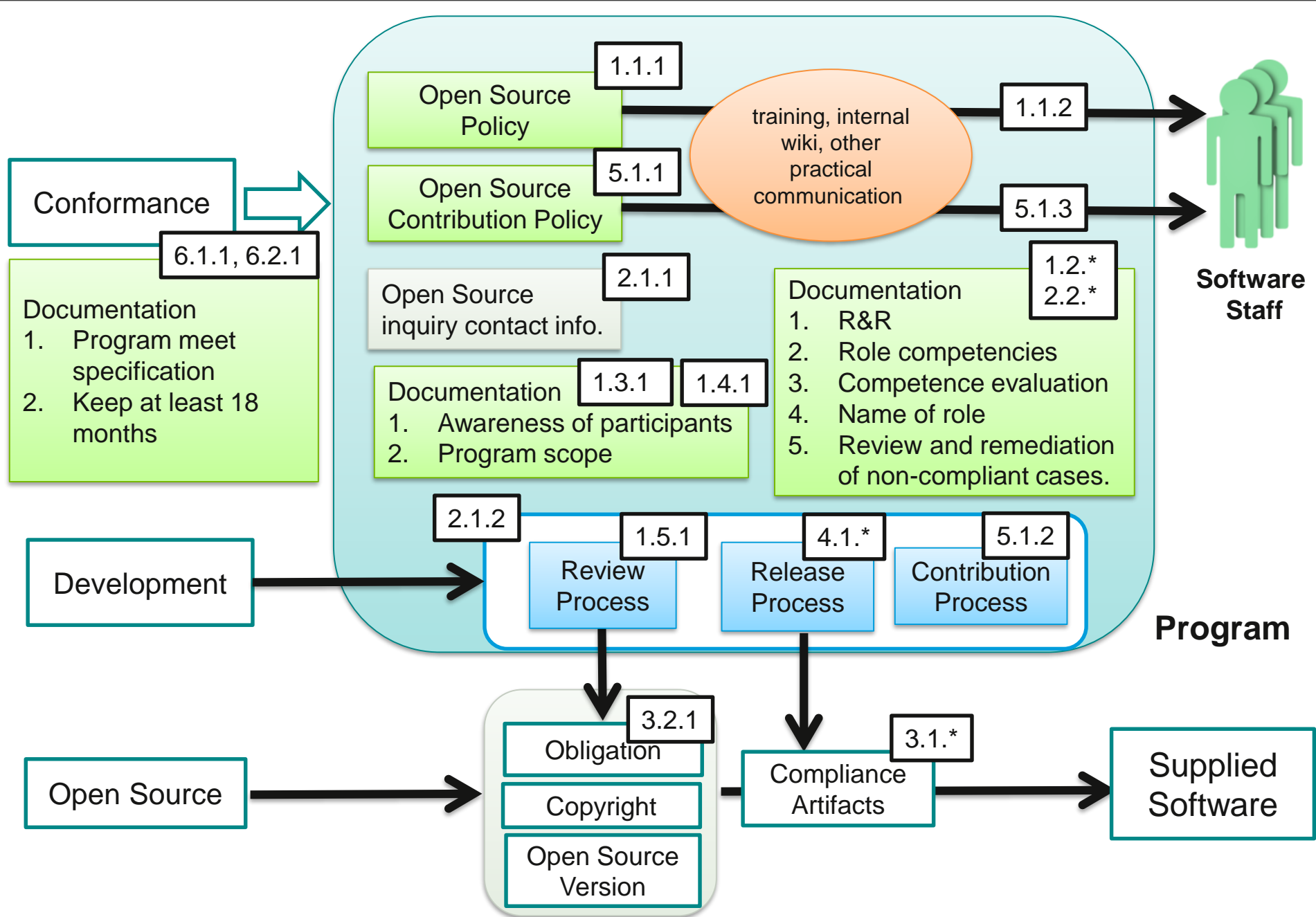
OPENCHAIN 規範書

版本 2.0

在開源裡建立信任以構建軟體解決方案

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Processes, Tooling and Support



OpenChain

Trust between entities in the supply chain

The OpenChain Project builds trust in open source by making open source license compliance simpler and more consistent



SPDX

Trust for software packages

Software Package Data Exchange (SPDX) is a file format used to document information on the software licenses under which a given piece of computer software is distributed.







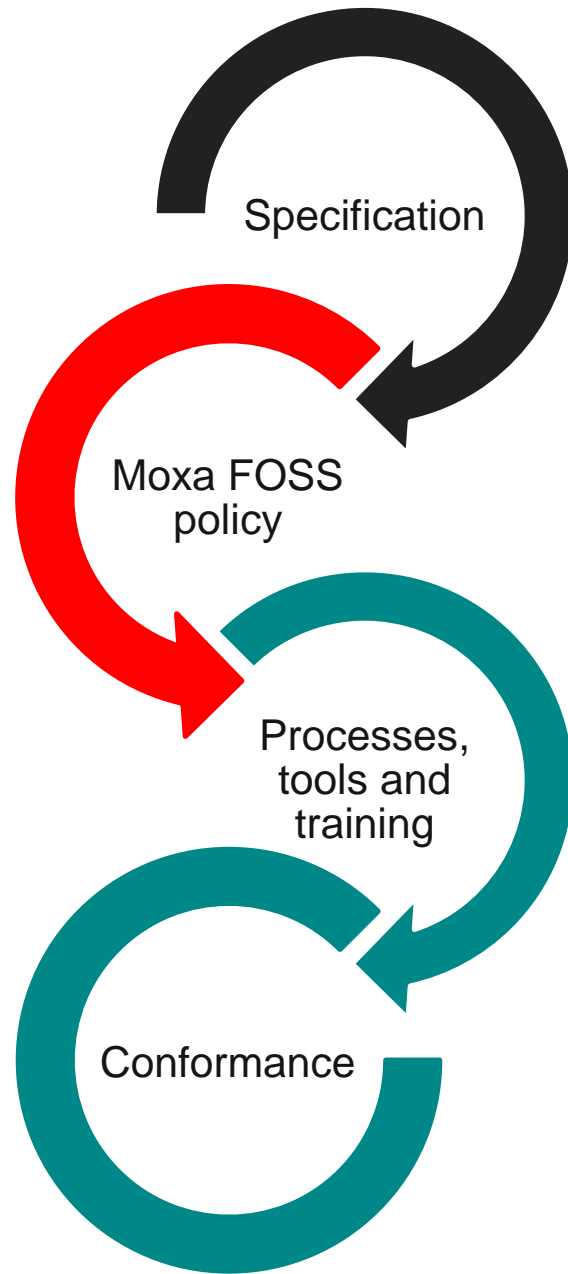
FOSSology

Free scanning technology

FOSSology is an open source license compliance software system and toolkit

Timeline (est.)

Phase	2019							
	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	
Specification								
Moxa FOSS Policy								
Processes, tools and training								
Conformance								



Open Source Activities in Moxa



openinventionnetwork®

Open Source Office

InnerSource

**When you want something, all
the universe conspires in
helping you to achieved it.**

Thank you

MOXA[®]
Reliable Networks ▲ Sincere Service

References

- 1. <https://resources.github.com/whitepapers/introduction-to-innersource/>
- 2. <https://dirkriehle.com/wp-content/uploads/2018/05/Inner-Source-Ten-Years.pdf>
- 3. <https://www.oreilly.com/programming/free/files/getting-started-with-innersource.pdf>