Appropriate use of OSS
The key persons are software engineers

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About myself

• **OSS Community liaison**
  • Establishment and fostering the CE Linux Forum since 2003
    • CE Linux Forum: former organization of The Linux Foundation CE Workgroup
  • Promote Linux for use in Consumer Electronics appliances

• **Within Sony**
  • Open Source Strategy
  • Reinforcement of OSS License compliance
  • http://oss.sony.net/Products/Linux
Get bored talking about appropriate “USE”

• Many people ask me about the appropriate use of OSS, in my company

• I know:
  • It is so important
• I know:
  • Many people do not understand
  • Many people are caught by myths, i.e. use of OSS may course litigation

Just stay “Using OSS” is too boring to enjoy life!
From our internal training course material

180 pages of the textbook
350 pages of the slides

For software developers
For supply-chain managers

8 hours

Nick named: **Ueda’s Open Source Software Boot Camp**
What is “Software License”?
What is software license?

Fundamentally:

The rights of software authors are protected by “copyright law”
What is software license?

Therefore:

The authors of the software (copyright holders) have the authority to grant the use of his/her/their copyrighted materials under certain conditions which reflect the intention of the authors.
What is software license?

Which means:

Software License is the document which states the conditions to use the copyrighted material and the hint to know the intention of the authors letting us to use the software.
Ordinal Software License Agreement

The licensor prepare the license agreement which include:
- The intention of the licensor to distribute the software
- The conditions to use the software

Through simply reading the license agreement, or the communication with the licensor, the licensee surely understand the conditions of the intention of the licensor.
OSS License Agreement

Someone created the License term

“Borrow” the license term to express the licensor’s intention and conditions to use the OSS

Read the license term to know the licensor’s intention and conditions to use the OSS

Could the licensor’s intention be surely brought to the licensee??

Licensee

Licensor (Copyright Holder)
OSS License Agreement

Someone created the License term

“Borrow” the license term to express the licenser’s intention and conditions to use the OSS

Read the license term to know the licensor’s intention and conditions to use the OSS

Just simply reading the license term **is not sufficient** when you use the Open Source Software

Licensor (Copyright Holder)

Licensee
Two critical issues to read OSS license

1. **Read the OSS License term carefully**
   
   Definitely it is very important!

2. **Understand the OSS development community’s intention**
   
   Why is the community releasing the software under OSS license?  
   What are their anticipations to the uses?  
   What makes community disappointed?
Legal and IP staffs

Must they have the insights to the community?

Is it realistic?

Legal / IPD

Their expertise are:

1. Read the OSS License term carefully and detect the legal or patent risks.
A sad misunderstandings to Legal / IPD staffs
2. Understand the OSS development community’s intention

Why is the community releasing the software under OSS license?
What are their anticipations to the uses?
What makes community disappointed?
What is most important when facing OSS is ...

Think about the people developing OSS (the community)

Try to

Appropriately understand them
The starting point of handling OSS is ...

Always keep in mind that

As a respectful citizen in the community, behave honorably.

Never stray from the right path or do something devious!
The WORST thing

Attempt to hide the fact to use the OSS for your products
In-house Framework of Appropriate use of OSS

Legal / IP staffs
Insights to the license terms

Software Engineers
Insights to the technology and the development community

Community relationship advisory

Collaboration

Report

Business judgment to use the OSS
Conclusion: “Collaboration” is the key word (1)

Appropriate use of OSS

Collaboration and Trust

Software engineers and Community relationship experts
With commonsense of software development work and insights to the OSS community

Legal and IP experts
With insights to the OSS licenses
Ideal situation!

Legal / IPD

In-house community

Software Engineers

OSS community experts

Appropriate and aggressive use of OSS
Proposals

Encourage software engineers to **participate in the OSS community**
To get actual feelings of what the development community is intending for the OSS

Create **in-house community** consisted by legal experts and community/technology experts

Tell stories what the OSS development community is intending
i.e.: Linus Torvalds’ email message sometimes so useful to understand the Linux community’s intention

Proposals to OSS community leaders such as the Linux Foundation
Proposed daily life of software engineers
A problem has been detected and windows has been shut down to prevent damage to your computer.

The problem seems to be caused by the following file: SPCMDCON.SYS

PAGE_FAULT_IN_NONPAGED_AREA

If this is the first time you've seen this stop error screen, restart your computer. If this screen appears again, follow these steps:

Check to make sure any new hardware or software is properly installed. If this is a new installation, ask your hardware or software manufacturer for any Windows updates you might need.

If problems continue, remove any new hardware or software. Disable any recently updated device drivers or shadowing. If you need to use Windows, press F8 when you restart your computer, press F8 to select Advanced Startup Options, and then select Safe Mode.

Technical information:

*** STOP: 0x00000050 (0xFD3094C2, 0x00000001, 0xFBFE7617, 0x00000000)

*** SPCMDCON.SYS - Address FBFE7617 base at FBFE5000, DateStamp 3d6dd67c

Now, what should we do?
An embarrassing case

“I’m lost, I don’t know what kind of software is in this product...”

The most basic part of software engineering!
Maintain and record the software configuration.

Perform configuration management appropriately

Software module information
Modification record
Source code
License information

The information obtained from this management will be the lifeline to suitable OSS usage.

This is the first step for appropriate OSS use
Don’t swallow anything without thinking twice!

Hey!
I’ve found cool software on the Web site.

Even if you find attractive software, evaluate it before using it!
Proposals: They must be commonsense for software engineers, I hope

**Software Configuration Management**

is the most vital matter!

Any methods will do so long as it can record software configuration appropriately

**Never hide the fact of using OSS**

Record the fact and the usage of OSS into the configuration management system
Those information must be shared with your client

**Evaluate the OSS when you decide the use**

Technical aspects (feature, quality...) , license as well as the community ecosystem
Together with the external partners

Supply chain issue
Even if Sony have enough skill and knowledge, it is impossible to perform appropriately without partners’ help.

The suggestion from the partner may save Sony, though it is embarrassing situation for Sony.

Ideal situation that we should aim at:

Appropriate knowledge and behavior
What Sony is doing

Appropriate knowledge and behavior

Sony internal OSS training

Intensive OSS Training course (8 hours)

- Principles of OSS
- License detail
- Practical case studies

...and more
What Sony is anticipating at the first line

Sharing the thoughts of the principles together with our partners

- Principles of OSS
- License detail
- Practical case studies

Appropriate knowledge and behavior

ODM / OEM Partners
Two principles we would like to share at the first line

1. Thoughts about the uniqueness of OSS license agreement
2. Thoughts about very fundamental behavior required for software development
Framework of Appropriate use of OSS together with partners

Legal / IP staffs

OEM/ODM Project leader

Community relationship advisory

SPDX

Partner Company

Legal / IP staffs

Software Engineers

Business judgment to use the OSS

Sony
Expected role of the Linux Foundation and the community

Linux Foundation

Help

Legal / IP staffs

OEM/ODM Project leader

Collaboration

Community relationship advisory

Business judgment to use the OSS

Help

Report

A great role of the Linux Foundation

Legal / IP staffs

Software Engineers

SPDX

Help

Community relationship advisory
Conclusion: “Collaboration” is the key word (2)

Appropriate use of OSS

Collaboration and Trust

OEM/ODM Supplier
With commonsense of software development work, insights to the OSS community and the OSS licenses

Legal and IP experts

Client
With insights to the OSS licenses
Appropriate use of the Open Source Software

It is the engineering issue, which is required legal help
Forgetting something?

The most important issue
A sad story which **actually happened**

Several years ago, **Start USING a OSS**

Fixed several bugs but hoarded those patches.

Did not upstream to the community.

Just recently, **A severe security problem** → **security patch**

The bug which they found have never fixed in the community. Rather that, the situation became worse than past.

They strongly regretted why they had not upstreamed the patches.
The idea of “Use OSS” is not appropriate behavior and may course some risk.
Just wait someone to bring your software?
Just wait someone to bring your software?

I believe community people are not so *cruel*

but...

I am not a free of charge servant of you to create the software!
Just wait someone to bring your software?

Let’s fly together in the open blue sky!
“Just waiting” is not an ideal strategy

OSS community is a place to make collaborative creation and innovation
Together! Toward future! Enjoy Innovation!
Activities of CEWG (Event: ELC / ELC-Europe)

- Embedded Linux Conference (US) and Embedded Linux Conference – Europe are the Linux Foundation hosting events focusing on OSS for embedded system, which CEWG strongly supporting
  - Both ELC and ELC-E are hosted by CE Linux Forum which is the former organization of CEWG
  - Spring time in US and fall timing in Europe
  - More than 500 embedded OSS enthusiasts are getting together for the exciting sessions
  - 2015 was the 10th anniversary year!
Activities of CEWG (Event: Japan Technical Jamboree)

• A step to bring Japanese embedded system developers’ ideas and challenges to the global community
  • Started October 2004, to be held about 3 month interval, recently
  • Will Count 60 times in next month
  • Assembling top notch developers from many companies, universities and more
  • Not only for the experts but also novice persons
  • Many Japanese developer jumped into the global community, hopping at Jamboree and stepping at ELC
In the next ELC-Europe

• I would like to review the 60 times of Japan Jamboree together with the evolution of OSS for embedded system aiming at the future! ... if my session proposal will be approved 😊

See you at Prague!
References

• CEWG Web site
  • http://www.linuxfoundation.org/collaborate/workgroups/celf

• LTSI project
  • http://ltsi.linuxfoundation.org/

• Open Project

• Embedded Linux Conference
  • ELC-Europe 2017
    • http://events.linuxfoundation.org/events/embedded-linux-conference-europe
  • ELC 2016
    • http://events.linuxfoundation.org/events/embedded-linux-conference

• Japan Technical Jamboree
  • http://elinux.org/Japan_Technical_Jamboree_Guidance
References

• Open Chain Project
  • https://wiki.linuxfoundation.org/openchain/

• SPDX project
  • https://spdx.org/
Thank you very much for your attention