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The Business Case for Strategic Investment in Community Best Practices

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Today companies have a choice between building platform components on their own or sharing a massive global resource to accelerate innovation.

The value of Free Software is not "free code" but "multiples of engineering investment."

Free Software helps stakeholders compete on products but collaborate on platforms.

Free Software provides value by reducing development cost and time to market for individual companies in the ecosystem.

Linux Foundation estimated that it would cost $10.8 billion to recreate a Linux Distribution like Fedora 9 in 2008.

http://www.linuxfoundation.org/sites/main/files/publications/estimatinglinux.html

Today 78% of companies run some or all of their operations on Free Software and 88% expect to increase their project contributions.

https://www.blackducksoftware.com/future-of-open-source

Projects hosted by Linux Foundation have a combined value of $5 billion. They would take 1,356 developers 30 years to recreate.

Free Software is in Enterprise, Embedded, Consumer, Automotive, Mobile…

It has eaten the world.

In an ideal world everyone using Free Software would understand how it creates value and how to engage with it effectively.

However…

Many companies adopted Free Software because suppliers, engineers or customers wanted it. There was no strategic plan.

Case Study: A Large Community Member Learns about License Compliance.

This is not optimal for a company's return on investment or for ecosystem sustainability.

Development, legal and community best practice is important to reduce friction and to obtain maximum value.

Compliance is not an end goal: it is part of strategic investment in the ecosystem.

Free Software depends on shared rules so that diverse stakeholders can work together.

Free Software Foundation Europe (FSFE) started a project in 2006 to help support European organisations with best practices.

FSFE answered hundreds of governance questions submitted online and via email.

FSFE collaborated with gpl-violations.org on dozens of license compliance issues.

FSFE created a network for lawyers to share knowledge that grew to over 300 participants across 28 countries and 4 continents.

Engagement and subsequent support of initiatives to address challenges across the global supply chain is significant.

"Invest and grow" is a better long-term business strategy than "grab and run."

Please welcome Harald Welte, founder of gpl-violations.org and the first person to take the GPL license to court, to explain the community and engineering side of things.

Linux, Community, License Compliance

Harald Welte <laforge@gnumonks.org>

Who am I and why am I here?

- Former Linux kernel developer (mostly netfilter/iptables)

- as technical as it can get. Not a lawyer.

- have had many, many other lives, including:

  - helping an (ARM) SoC maker to understand mainline development process

  - security research + ethical hacking @ German CCC

  - Open Hardware + FOSS firmware/software RFID reader

  - electronics + software development for the first *100% FOSS* smartphone Openmoko

  - 2008 onwards: OpenBSC, Osmocom: FOSS implementation of telecom protocol stacks for GSM/GPRS/EDGE/UMTS infrastructure

  - 2011 onwards: running a small company in Berlin doing FOSS based cellular infrastructure

- but also: Legal enforcement of the GNU GPL on the Linux kernel

- I'm here to share my personal perspective on License compliance

My personal journey into *the communities*

The culture in which we grow up defines our values. For me:

- BBS communities (FIDO, Z-Netz, ...) and UseNet @ age 12
- programming DOS shareware in TurboPascal @ age 13
    - Didn't know about Free Software yet. My apologies!
- switched to GNU/Linux before Windows 95, never looked back
    - learning about Free Software, GNU, copyleft, the GPL
- from 1994 on, helped building a non-for-profit ISP
    - started to write + contribute patches against software we used there
- from 1999 onwards: netfilter/iptables, the Linux 2.3/2.4 packet filter

⇒ all of the above were communities of enthusiasts

- open to anyone
- information and code was shared freely, to mutual benefit

Linux and license compliance

- Until around 2000, Linux was still the niche of the nerds
  - the Long-bearded gurus used a **real** UNIX instead
  - the rest of the world was trapped in Microsoft-land

- GPL violations on the Linux kernel were not known to me until about 2002

- First news about GPL violations made me very upset
  - the industry ignored our culture, rules and norms
  - they took what we had created and did not give back
  - as companies didn't react to friendly reminders, I started legal action
  - gpl-violations.org was started, first legal case in 2003
  - enforcement in hundreds of cases, most of them out of court
  - prevailed in several German court cases, 100% success rate

Technical GPL enforcement

In the active phase of gpl-violations.org, we would

- browse new product announcements, vendor web sites for suspicious-looking products

- go into electronics stores and make test purchases

- disassemble the hardware

- reverse-engineer serial console, JTAG

- dump flash via JTAG or hot-air-rework and offline flash dumping

- manually unpack the (often proprietary) firmware image formats

- search for strings/symbols of Linux kernel code that I hold copyright on

- As this is the technical part, it can actually be quite enjoyable.

- Buying new gadgets and probing test-points for UART/JTAG definitely more enjoyable and rewarding than Sudoku for me ;)

Legal GPL enforcement

After technical analysis is complete, the legal battle starts

- explaining technical evidence to your lawyer

- reviewing legal briefs of both parties

- spending lots of time trying to teach corporate legal departments what you have learned as a teenager growing up with FOSS

- makes you **even more frustrated/upset**, as this costs time

  - not only do they insult the community and its culture

  - they now also keep me from writing more code by being hostile or ignorant

  - and they force me to take legal risks

Starts all over again with each new vendor, department within the vendor, or at least in every new market Linux gets introduced :(

Taking a step back

- companies start to work on/with Linux without following collaborative development model. Their management is free to
  - ignore the decades-old requests by the community
  - ignore requests by their own engineers to contribute

- community upset, because management did **not** enable, allow or require
  - FOSS development to be done in the regular, collaborative process
  - their engineers to contribute

- gpl-violations.org uses the legal vehicle of copyright enforcement
  - senior management cannot ignore legal threats, we got their attention!

- Result: they ask their lawyers what needs to be done to comply to the absolute minimum *legally* required to not get in trouble
  - they do still not follow the collaborative development process

The cultural impedance mis-match

Surprise: FOSS is about collaborative development

- participation on mailing lists
- developing code in public repositories
- using fine grained commits
- to **jointly develop software**
- it is **not about procrastinating over legal issues**
- FOSS developers *really* want **collaboration, not license compliance**
  - GPL is just a legal hack to ensure the bare absolute minimum of adherence to the FOSS culture
  - it suffers from impedance mismatch between what can be done under copyright law, and not what is *actually* the goal in terms of a development model
  - focusing *just* on legal compliance with the license indicates a lack of understanding
- **GPL compliance should be driven by engineering, not legal!**

Cultural Differences

- exist between every set of two cultures

- think of *Western* vs. *Asian* culture

- westerners (*farang/gaijin/laowei*) are considered rude, if they
  - stick chopsticks in a rice bowl anywhere in Asia
  - have loud phone conversations on a Japanese train
  - want to split a restaurant bill in China
  - decline to accept Soju offered by their Korean host
  - use a Buddha statues head as decoration in Thailand

- Being European and coming to Asia likely causes me to make mistakes due to the *cultural differences*.

- those mistakes may cause people to be upset with me. *How could I not know?* Couldn't I at least inform myself before travelling?

- This is not so different from an electronics or proprietary software company first engaging with FOSS

License Compliance in 2016?

- those parts of the IT industry exposed to (embedded) Linux for a longer time make more of an effort to comply *with legal requirements only*
  - establishing the required release + business processes
  - FOSS + proprietary tools for aiding license compliance
  - Legal Network by FSFE with hundreds of legal experts

- license compliance is driven by fear of legal threats, not by understanding + following collaborative development models :(

- Treated similar to compliance with environmental standards, regulatory requirements, etc.

⇒ Bringing back the Western vs. Asian cultural analogy:

- Our *farang/gaijin/laowei* now complies with local laws by not bringing restricted items (medication, too long pocket knives) into Asia which might be legal at his home (legal compliance)

- He still often ignores the local culture and social norms, and is perceived by some of the locals as disrespectful or rude at times (doesn't cause legal risks)

Summary

- legal-to-the-letter compliance has significantly improved over the last 15 years

- awareness that license compliance is mandatory is widely present

- collaborative FOSS development model is becoming more frequent

- however, some industry players, particularly those doing FOSS for a shorter time still think FOSS is a one-way road that enables them to profit on the work of others while keeping their code private / out-of-tree

  - Sure, you can have a marriage that caters exclusively to the needs of one of the people involved

    - But will it be a sustainable long-term relationship?

    - Or will it just be a short affair?

- we need to shift the focus from *legal-centric GPL compliance* to *engineering-centric collaborative development*

The End

Thanks for your attention.

- You have a license to raise questions now !