The GPL is not Public Domain

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Introduction

Who is speaking to you?
- an independent Free Software developer
- who earns his living off Free Software since 1997
- who is one of the authors of the Linux kernel firewall system called netfilter/iptables
- who IS NOT A LAWYER, although this presentation is the result of dealing almost a year with lawyers on the subject of the GPL

Why is he speaking to you?
- because he thinks there is too much confusion about copyright and free software licenses. Even Red Hat CEO Matt Szulik stated in an interview that RedHat puts investments into 'public domain' :(

Disclaimer

Legal Disclaimer

○ All information presented here is provided on an as-is basis
○ There is no warranty for correctness of legal information
○ The author is not a lawyer
○ This does not comprise legal advise
○ The authors experience is limited to German copyright law

What is copyrightable?

□ The GNU GPL is a copyright license, and thus only covers copyrighted works

□ Not everything is copyrightable (German: Schoepfungshoehe)

○ Small bugfixes are not copyrightable (similar to typo-fixes in a book)

○ As soon as the programmer has a choice in the implementation, there is significant indication of a copyrightable work

○ Choice in algorithm, not in formal representation

□ Apparently, the level for copyrightable works is relatively low

Terminology

- ☐ Public Domain
  - ○ concept where copyright holder abandons all rights
  - ○ same legal status as works where author has died 70 years ago (German: Gemeinfreie Werke)
- ☐ Freeware
  - ○ object code, free of cost. No source code
- ☐ Shareware
  - ○ proprietary "Try and Buy" model for object code.
- ☐ Cardware/Beerware/...
  - ○ Freeware that encourages users to send payment in kind

Terminology

- Free Software
  - source code freely distributed
  - must allow redistribution, modification, non-discriminatory use
  - mostly defined by Free Software Foundation
- Open Source
  - source code freely distributed
  - must allow redistribution, modification, non-discriminatory use
  - defined in the "Open Source Definition" by OSI

- The rest of this document will refer to Free and Open Source Software as FOSS.

Common FOSS licenses

☐ Original BSD License
- ○ allows redistribution, modification
- ○ even allows proprietary extensions with no source code offer
- ○ all docs, advertisement materials have to mention copyright holder

☐ Modified BSD License
- ○ same as "Original BSD License", but no copyright statements required in docs and advertisements

Common FOSS licenses

☐ GPL (GNU General Public Liense)
- ○ allows redistribution, including modified works
- ○ obliges distributor to supply source code including all modifications
- ○ usage rights are revoked if license conditions not met

☐ LGPL (GNU Library General Public License)
- ○ explicitly allows linking of proprietary applications
- ○ written as special case for libraries (such as glibc)

The GNU GPL Revisited

Revisiting the GNU General Public License

○ Regulates distribution of copyrighted code, not usage

○ Allows distribution of source code and modified source code

▷ The license itself is mentioned

▷ A copy of the license accompanies every copy

○ Allows distribution of binaries or modified binaries, if

▷ The license itself is mentioned

▷ A copy of the license accompanies every copy

▷ The complete source code is either included with the copy made available to any 3rd party

Complete Source Code

"... complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable."

☐ Our interpretation of this is:

○ Source Code

○ Makefiles

○ Tools for generating the firmware binary from the source

▷ (even if they are technically no 'scripts')

☐ General Rule:

○ Intent of License is to enable user to run modified versions of the program. They need to be enabled to do so.

○ Result: Signing binaries and only accepting signed versions without providing a signature key is not acceptable!

Derivative Works

□ **What is a derivative work?**

　○ Not dependent on any particular kind of technology (static/dynamic linking, dlopen, whatever)

　○ Even while the modification can itself be a copyrightable work, the combination with GPL-licensed code is subject to GPL.

□ **No precendent in Germany so far**

　○ As soon as code is written for a specific non-standard API (such as the iptables plugin API), there is significant indication for a derivative work

　○ This position has been successfully enforced out-of-court with two Vendors so far (iptables modules/plugins).

Derivative Works

☐ Position of my lawyer:
- ○ In-kernel proprietary code (binary kernel modules) are hard to claim GPL compliant
- ○ Case-by-case analysis required, especially when drivers/filesystems are ported from other OS's.

Collected Works

"... it is not the intent .. to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works ..."

"... mere aggregation of another work ... with the program on a volume of a storage or distribution medium does not bring the other work under the scope of this license"

☐ **GPL allows "mere aggregation"**
- ○ like a general-porpose Linux distribution (SuSE, Red Hat, ...)

☐ **GPL disallows "collective works"**
- ○ legal grey area
- ○ tends to depend a lot on jurisdiction
- ○ no precendent so far

Non-Public modifications

☐ Non-Public modifications

  ○ A common misconception is that if you develop code within a corporation, and the code never leaves this corporation, you don't have to ship the source code.

  ○ However, at least German law would count every distribution beyound a number of close colleague as distribution.

  ○ Therefore, if you don't go for '3a' and include the source code together with the binary, you have to distribute the source code to any third party.

  ○ Also, as soon as you hand code between two companies, or between a company and a consultant, the code has been distributed.

GPL Violations

☐ When do I violate the license
- when one ore more of the obligations are not fulfilled

☐ What risk do I take if I violate the license?
- the GPL automatically revokes any usage right
- any copyright holder can obtain a preliminary injunction banning distribution of the infringing product

Past GPL enforcement

Past GPL enforcement

○ GPL violations are nothing new, as GPL licensed software is nothing new.

○ However, the recent Linux hype made GPL licensed software used more often

○ The FSF enforces GPL violations of code on which they hold the copyright

▷ silently, without public notice
▷ in lengthy negotiations

The Linksys case

☐ During 2003 the "Linksys" case drew a lot of attention

○ Linksys was selling 802.11 WLAN Acces Ponts / Routers

○ Lots of GPL licensed software embedded in the device (included Linux, uClibc, busybox, iptables, ...)

○ FSF led alliance took the usual "quiet" approach

○ Linksys bought it self a lot of time

○ Some source code ws released two months later

○ About four months later, full GPL compliance was achieved

The Linksys case

- ☐ Some developers didn't agree with this approach
  - ○ not enough publicity
  - ○ violators don't loose anything by first not complying and wait for the FSF
  - ○ four months delay is too much for low product lifecycles in WLAN world
- ☐ The netfilter/iptables project started to do their own enforcement in more cases that were coming up

Enforcement case timeline

☐ In chronological order
- ○ some user sends us a note he found our code somewhere
- ○ reverse engineering of firmware images
- ○ sending the infringing organization a warning notice
- ○ wait for them to sign a statement to cease and desist
- ○ if no statement is signed
  - ▷ contract technical expert to do a stdudy
  - ▷ apply for a preliminary injunction
- ○ if statement was signed
  - ▷ try to work out the details
  - ▷ grace period for boxes in stock possible
  - ▷ try to indicate that a donation would be good PR

GNU GPL - Copyright helps Copyleft

Sucess so far

□ Success so far
- amicable agreements with a number of companies
  ▷ some of which made significant donations to charitable organizations of the free software community
- preliminary injunction against Sitecom, Sitecom also lost appeals case
- more settled cases (not public yet)
- negotiating in more cases
- public awareness

Cases so far

- Allnet GmbH
- Siemens AG
- Fujitsu-Siemens Computers GmbH
- Axis A.B.
- Securepoint GmbH
- U.S.Robotics Germany GmbH
- undisclosed large vendor
- Belkin Compnents GmbH
- Asus GmbH
- Gateprotect GmbH
- Sitecom GmbH
- TomTom B.V.
- Gigabyte Technologies GmbH
- D-Link GmbH
- Sun Deutschland GmbH
- Open-E GmbH

Future GPL Enforcement

GPL Enforcement
- remains an important issue for Free Software
- will start to happen within the court
- has to be made public in order to raise awareness

Problems
- only the copyright holder (in most cases the author) can do it
- users discovering GPL'd software need to communicate those issues to all copyright holders

The http://www.gpl-violations.org/ project was started
- as a platform wher users can report alleged violations
- to verify those violations and inform all copyright holders
- to inform the public about ongoing enforcement efforts

Make later enforcement easy

☐ **Practical rules for proof by reverse engineering**
- ○ Don't fix typos in error messages and symbol names
- ○ Leave obscure error messages like 'Rusty needs more caffeine'
- ○ Make binary contain string of copyright message, not only source

☐ **Practical rules for potential damages claims**
- ○ Use revision control system
- ○ Document source of each copyrightable contribution
  - ▷ Name+Email address in CVS commit message
- ○ Consider something like FSFE FLA (Fiduciary License Agreement)
- ○ Make sure that employers are fine with contributions of their employees

☐ **If you find out about violation**
- ○ Don't make it public (has to be new/urgent for injunctive relief)
- ○ Contact lawyer immediately to send wanrning notice

Thanks

☐ Thanks to

○ Alan Cox, Alexey Kuznetsov, David Miller, Andi Kleen

▷ for implementing (one of?) the world's best TCP/IP stacks

○ Paul 'Rusty' Russell

▷ for starting the netfilter/iptables project

▷ for trusting me to maintain it today

○ Astaro AG

▷ for sponsoring parts of my netfilter work

○ Free Software Foundation

▷ for the GNU Project

▷ for the GNU General Public License

☐ The slides of this presentation are available at http://www.gnumonks.org/

☐ Further Reading

☐ The netfilter homepage http://www.netfilter.org/

☐ The http://www.gpl-violations.org/ project