

# Enforcing the GNU GPL Copyright helps Copyleft

by

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GNU GPL - Copyright helps Copyleft

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GNU GPL - Copyright helps Copyleft

## Introduction

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### 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?

- 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' :(

GNU GPL - Copyright helps Copyleft

## Disclaimer

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### 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 advice
- The authors' experience is limited to German copyright law

## Free Software and its role in computing

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- Free Software (aka Open Source Software) became popular with the advent of the internet
- Used increasingly in any market
  - traditionally in the server area
  - more recently on the desktop area
  - but large numbers of installations in the embedded market
    - router / gateway / firewalls
    - wireless access points
    - network attached storage
    - wireless phones

## The Free Software development model

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- Distributed developers throughout the world
- Contributions can come from anyone with required skills
- 'cooking pot economy'
  - everyone puts a small ingredient into the pot
  - because it's an immaterial pot, everyone gets a full pot
- As a result, copyright of the resulting work is vastly distributed

## Free Software and its licenses

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- It's important to note that it is about freedom of the user, not free beer
- Big number of Free (and Open Source) licenses in use
- However, significant number of important projects licensed under GNU GPL
- Most commonly known example for GPL-covered code: The Linux OS Kernel

## Terminology

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- 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

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- 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.**

## The GNU GPL Revisited

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### 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

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"... 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

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- 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 precedent 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

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- 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

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"... 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 und the scope of this license"

- GPL allows "mere aggregation"**
  - like a general-purpose GNU/Linux distribution (SuSE, Red Hat, ...)
  
- GPL disallows "collective works"**
  - legal grey area
  - tends to depend a lot on jurisdiction
  - no precedent so far

## Non-Public modifications

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- 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 beyond 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

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- 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

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### Past GPL enforcement

- GPL violations are nothing new, as GPL licensed software is nothing new.
- However, the recent GNU/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

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- During 2003 the "Linksys" case drew a lot of attention
  - Linksys was selling 802.11 WLAN Acces Pons / 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 itself a lot of time
  - Some source code was released two months later
  - About four months later, full GPL compliance was achieved

## The Linksys case

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- 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

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- 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 study
    - 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

## Success so far

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- Success so far
  - amicable agreements with a number (20+) 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
  - court decision of Munich district court in Sitecom appeals case
  - a second preliminary injunction against one of Germany's largest technology firms
  - more settled cases (not public yet)
  - negotiating in more cases
  - public awareness

## Cases so far (1/2)

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- Allnet GmbH
- Siemens AG
- Fujitsu-Siemens Computers GmbH
- Axis A.B.
- Securepoint GmbH
- U.S. Robotics Germany GmbH
- Netgear GmbH
- Belkin Components GmbH
- Asus GmbH
- Gateprotect GmbH
- Sitecom GmbH / B.V.
- TomTom B.V.
- Gigabyte Technologies GmbH
- D-Link GmbH

## Cases so far (2/2)

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- Sun Deutschland GmbH
- Open-E GmbH
- Siemens AG (second case)
- Deutsche Telekom AG
- Hitachi Inc.
- Tecom Inc.
- ARP Datacon GmbH
- Conceptronic B.V.

## What we've learned

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- Copyleft-style licenses can be enforced!
- A lot of companies don't take Free Software licenses seriously
  - Even corporations with large legal departments who should know
  - Reasons unclear, probably the financial risk of infringement was considered less than the expected gains
- The FUD spread about "GPL not holding up in court" has disappeared

## Future GPL Enforcement

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### GPL Enforcement

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

### What about Copylefted Content (Creative Commons)

- probably just a matter of time until CC-licensed works of art are infringed

## Problems of GPL Enforcement

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### Problems

- distributed copyright
  - is an important safeguard
  - can make enforcement difficult, since copyright traditionally doesn't know cases with thousands of copyright holders
  - distribution of damages extremely difficult
- the legal issue of having to do reverse engineering in order to prove copyright infringement(!)
- only the copyright holder (in most cases the author) can do it
- users discovering GPL'd software need to communicate those issues to all entitled parties (copyright holders)
- infringers obfuscating and/or encrypting free software as disguise

### The <http://www.gpl-violations.org/> project was started

- as a platform where users can report alleged violations
- to verify those violations and inform all copyright holders
- to inform the public about ongoing enforcement efforts

## Thanks

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### Thanks to

- KNF
  - for first bringing me in contact with linux in 1994
- Astaro AG
  - for sponsoring most of my netfilter work
- Free Software Foundation
  - for the GNU Project
  - for the GNU General Public License
- Dr. Till Jaeger
  - for handling my legal cases

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

### Further reading:

- The <http://www.gpl-violations.org/> project
- The Free Software foundation <http://www.fsf.org/>, <http://www.fsf-europe.org/>
- The GNU Project <http://www.gnu.org/>
- The netfilter homepage <http://www.netfilter.org/>