

# **GPL3: Process and Product**

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# GPL and Copyleft

- GPLv2 (1991): most widely used FOSS license (~70% of projects)
- Most GPL-licensed software is not FSF-copyrighted, but FSF is widely recognized as having special interpretive authority

# Copyleft

- Use of copyright licensing to ensure that free programs remain in commons as they evolve, in contrast to BSD-style licenses which allow non-free enhancements
- Free software means recipients have freedom to run, study, copy, modify, and share, subject to copyleft restrictions
- Freedom to study and modify software requires access to source code

# GPL Basics

- ❑ Private/internal use (running, copying, modification) of program is essentially unrestricted
- ❑ Users can distribute unmodified copies, passing on upstream license
- ❑ Users can distribute modified versions but only if they license the entire modified program under GPL
- ❑ Can distribute object code, but only if complete corresponding source code is also distributed, which means enough to enable rebuilding of the binary, other than system libraries

# GPL Basics (continued)

- ❑ Distributors cannot impose further restrictions on downstream exercise of GPL rights
- ❑ Automatic licensing from upstream copyright holders
- ❑ Liberty or death: distributors cannot affirmatively agree to withhold GPL rights from downstream recipients (truth-in-labeling)
- ❑ Downstream upgradability to later GPL versions where program is licensed under "GPL version X or any later version" (true of most GPL-licensed software)
- ❑ LGPL variant: scope of copyleft ends at the library interface (allows GPL-noncompliant distribution of proprietary/GPL combinations)

# Drafting of GPLv3

- Broad and specially-designed public discussion process 2006-2007
  - web-based public comment submission, four discussion committees representing diverse FOSS stakeholders, several public discussion drafts released, multilateral political negotiation
  - 269 hours of committee meetings, subcommittee meetings, etc.
  - discussion committees collectively had 128 members at their theoretical peak; 2741 public comments recorded (many of which contained two or more individual entries)
- Final version published June 29, 2007

# Adoption at present

- ❑ FSF-controlled GNU programs (includes some commercially significant software: gcc, glibc (LGPL), binutils)
- ❑ Samba
- ❑ Sun Microsystems: xVM and other works
- ❑ SugarCRM community edition: v3 + attribution preservation
- ❑ Several hundred small projects (small development teams, not in wide commercial use; many non-US based)

# Expected Adoption

- ❑ Linux distributions: Debian, Novell, Red Hat already distributing v3 software (Linux kernel unlikely to relicense)
- ❑ Qt library of Trolltech
- ❑ Sun Java, OpenSolaris ??



# Principal Changes

- Internationalization
- Anti-Lockdown Provisions
- Anti-Circumvention Law
- Patents
- Contractors and Outsourcing
- Additional Terms
- Termination

# Internationalization

- Legal and political goals
  - Consistency and predictability of results across jurisdictions
  - Discourage "national GPLs" and nationalist anti-GPL adjudication
  - Address some enforceability issues

# Avoid US Legal Terminology

- ❑ Modify = "to copy from or adapt all or part of the work in a fashion requiring copyright permission, other than the making of an exact copy" (section 0)
- ❑ "modified version" replaces v2  
"derivative work"

# Terminology (continued)

- Propagate = "to do anything with [a work] that, without permission, would make you directly or secondarily liable for infringement under applicable copyright law, except executing it on a computer or modifying a private copy" (section 0)
  - Examples include copying, distribution, making available
  - Convey subset: "propagation that enables other parties to make or receive copies" ("other" left undefined) replaces v2 "distribute"

Does not include "mere interaction with a user through a computer network"

# Non-US Legal Concepts Honored

- "All rights granted under this License are granted for the term of copyright on the Program" (section 2 para 1)
- Influence of European legal advisers
  - explicit prohibition on sublicensing
  - formal retention of automatic termination
  - local law variant warranty and liability disclaimers permitted

If disclaimers "cannot be given local legal effect according to their terms, reviewing courts shall apply local law that most closely approximates an absolute waiver of all civil liability in connection with the Program" (section 17)

# Anti-Lockdown Provisions

- Majority view: GPLv2 does not require distributors to ensure downstream modifiability of software in situ
- Object code conveyed in a User Product must be accompanied by Installation Information in addition to source code (section 6)
  - User Product = essentially "consumer product" under warranty law
  - Installation Information = "information required to install and execute modified versions ...in that User Product from a modified version of its Corresponding Source," such that "the continued functioning of the modified object code is in no case prevented or interfered with solely because modification has been made"

# Anti-Lockdown: Limitations

- ❑ Must be "part of a transaction in which the right of possession and use of the User Product is transferred to the recipient in perpetuity or for a fixed term" (e.g., sale, lease)
- ❑ Inherently unmodifiable works excluded: "neither [the distributor] nor any third party retains the ability to install modified object code on the User Product"
- ❑ No requirement "to continue to provide support service, warranty, or updates for a work that has been modified or installed by the recipient, or for the User Product in which it has been modified or installed"
- ❑ "Access to a network may be denied when the modification itself materially and adversely affects the operation of the network or violates the rules and protocols for communication across the network."

# Anti-Lockdown: Enforcement

- Likely to focus primarily on wilful violators of more basic GPL requirements, and secondarily on lockdown measures that are intended to prevent downstream innovation
- Lockdown measures resulting from good-faith compliance with ordinary regulatory requirements will be tolerated



# Anti-Circumvention Law

- Narrow provisions targeting DMCA (17 USC section 1201), EUCD implementing legislation (section 3)
  - Hint to courts: "No covered work shall be deemed part of an effective technological measure" under anti-circumvention law
  - Defense for downstream modifiers: distributor "waive[s] any legal power to forbid circumvention of technological measures to the extent such circumvention is effected by exercising rights under this License with respect to the covered work"
  - Distributor "disclaim[s] any intention to limit operation or modification of the work as a means of enforcing, against the work's users, [the distributor's] or third parties' legal rights to forbid circumvention of technological measures."

# Patents

- ❑ Overall drafting goal: reduce patent-related friction within GPL commons with specific rules affecting patent holders and patent licensees who participate
- ❑ Drafting affected by (a) lobbying by many vendors against broad distribution-based patent license grant, and (b) Microsoft-Novell deal (viewed as effort by Microsoft to extend monopoly into FOSS space)
- ❑ Contribution-based patent license grant: "Each contributor grants you a non-exclusive, worldwide, royalty-free patent license under the contributor's essential patent claims, to make, use, sell, offer for sale, import and otherwise run, modify and propagate the contents of its contributor version." (section 11 para 3)

# Patent License Grant

- Contributor: "a copyright holder who authorizes use under this License of the Program or a work on which the Program is based." (= contributor version)
- Essential patent claims: "all patent claims owned or controlled by the contributor, whether already acquired or hereafter acquired, that would be infringed by some manner, permitted by this License, of making, using, or selling its contributor version"
  - Contributor version is the whole GPL-licensed work, not just the contributor's modifications
  - Excludes "claims that would be infringed only as a consequence of further modification of the contributor version"

# Rule Against Patent Betrayal

- "[Y]ou may not initiate litigation (including a cross-claim or counterclaim in a lawsuit) alleging that any patent claim is infringed by making, using, selling, offering for sale, or importing the Program or any portion of it." (section 10 para 3)
  - Consequence is ordinary termination of the license by copyright holder (including termination of granted patent licenses); effectively a patent termination clause, similar to those in other FOSS licenses
  - Unlike patent license grant, applies to mere distributors

# "Downstream Shielding" Provision

- Applies if distributor "convey[s] a covered work, knowingly relying on a patent license" (section 11 para 5)
  - Knowingly relying "means you have actual knowledge that, but for the patent license, your conveying the covered work in a country, or your recipient's use of the covered work in a country, would infringe one or more identifiable patents in that country that you have reason to believe are valid."
- Distributor must ensure that the corresponding source code of the work is available from some source for anyone to copy, free of charge (or choose one of two other less likely options not requiring publication of source code)

# Microsoft/Novell provision

- "If, pursuant to or in connection with a single transaction or arrangement, you convey, or propagate by procuring conveyance of, a covered work, and grant a patent license to some of the parties receiving the covered work authorizing them to use, propagate, modify or convey a specific copy of the covered work, then the patent license you grant is automatically extended to all recipients of the covered work and works based on it." (section 11 para 6)
- Targets Microsoft's role in Microsoft-Novell deal, extension of narrow patent promise to commercial customers of favored distributions, on the theory that the coupon scheme makes Microsoft a distributor of SLES, with Novell its fulfillment agent
- Provides estoppel-like defense for FOSS-using parties sued by Microsoft for patent infringement

# Deterrence of Novell-like Parties

- "You may not convey a covered work if you are a party to an arrangement with a third party that is in the business of distributing software, under which you make payment to the third party based on the extent of your activity of conveying the work, and under which the third party grants, to any of the parties who would receive the covered work from you, a discriminatory patent license (a) in connection with copies of the covered work conveyed by you (or copies made from those copies), or (b) primarily for and in connection with specific products or compilations that contain the covered work" (section 11 para 7)
- Novell excluded by grandfather clause

# Contractors and Outsourcing

- ❑ Uses of offsite contractor developers and outsourcing of data center operations may constitute GPLv2 "distribution," leading to noncompliance
- ❑ GPLv3 explicitly tolerates this practice in section 2 para 2 within limits: Your copyrighted material in modified versions you give to contractor/data center can be kept trade secret



# Additional Terms

- Section 7 of GPLv3 formalizes existing practices under GPLv2 regarding supplementary permissive and restrictive terms
- Additional permissions:
  - "You may place additional permissions on material, added by you to a covered work, for which you have or can give appropriate copyright permission."
  - "When you convey a copy of a covered work, you may ... remove any additional permissions from that copy"

# Additional Restrictions

- General rule: "you may not impose any further restrictions" on recipients' exercise of GPL rights (section 10 para 3)
- Six exceptional categories, mostly codifying FSF's v2 license compatibility analysis:
  - Variant warranty and liability disclaimers
  - Preservation of legal notices or author attributions
  - Prohibitions on misrepresentation of origin
  - Limiting publicization of licensor/author names
  - Denials of trademark rights
  - Upstream indemnification clauses (added for Apache License compatibility)
- Authorization to delete contradictory restrictions in GPL notices (e.g. no commercial/military use)

# Termination

- GPLv3 replaces harsh GPLv2 automatic termination by adding cure opportunity and period of repose (section 8); shifts power away from FSF-like enforcers and towards distributors
- "[I]f you cease all violation of this License, then your license from a particular copyright holder is reinstated (a) provisionally, unless and until the copyright holder explicitly and finally terminates your license, and (b) permanently, if the copyright holder fails to notify you of the violation by some reasonable means prior to 60 days after the cessation."

# Termination (continued)

- "[Y]our license from a particular copyright holder is reinstated permanently if the copyright holder notifies you of the violation by some reasonable means, this is the first time you have received notice of violation of this License (for any work) from that copyright holder, and you cure the violation prior to 30 days after your receipt of the notice."