Open Source

Is It Safe To Go Back Into the Water?

Disclaimer

I am not a lawyer.

These are solely my own ideas and not that of my employer. Any errors are unintentional and attributable to me personally. Consult your legal representation before doing anything.

Please don't get me fired :-)



Abstract



With a string of legal decisions favorable to open source having been handed down recently, and IBM's fairly strong backing,

open source has become an increasingly viable option for enterprise deployment, even in a System z environment.

Special Thanks to This Guy



I am here to help buzzetti@us.ibm.com



Why use Open Source ?



Shallow Bugs



World Wide Contributions



Greater Innovation



Flexibility



Software Re-Use



Definition



Introduction

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1. Free Redistribution



2. Source Code



3. Derived Works



4. Integrity of The Author's Source Code



5. No Discrimination Against Persons or Groups



6. No Discrimination Against Fields of Endeavor



Sad truth: Most "mad scientists" are actually just mad engineers

7. Distribution of License



8. License Must Not Be Specific to a Product



9. License Must Not Restrict Other Software



10. License Must Be Technology-Neutral



Licenses



GPLv2



GPLv3



Free as in Freedom

GNU LESSER GENERAL PUBLIC LICENSE (LGPL)



Free as in Freedom



BSD



Creative Commons



Comparison

	BSD	Apache	GPLv2	LGPL	GPLv3
Copyleft ?	No	No	Strong	Weak	Strong
Distribute Object Code without providing source code?	Yes	Yes	No	No	No
Distribute Derivatives Under a different License ?	Yes	Yes	No	No	No
Copyright Notice Required ?	Yes	Yes	Yes	Yes	Yes
Disclaimers Required ?	Yes	Yes	Yes	Yes	Yes
Copy of License Required ?	No	Yes	Yes	Yes	Yes
Notice of Changes Required ?	No	Yes	Yes	Yes	Yes
Legal Information Required ?	No	No	No	No	No

IBM and Open Source



Eclipse



(c) Copyright IBM Corp. and others. 2000, 2003. All rights reserved. Java and all Java-related trademarks and logos are trademarks or registered trademarks of Sun Microsystems, Inc. in the U.S., other countries, or both.



Geronimo



z/OS Ports of OSS


Patent Pledge



SCO vs IBM





Lots of Money



Counter Suit



Not Over



Outcomes

It is not over until it is over, but for now...

On March 30, 2010 the jury returned a verdict, finding that Novell owns the copyrights to Unix.

Hercules



Hercules Controvery



Busybox

The trendy way to be sued over the GPL...



Xterasys, High-Gain Antennas, Verizon Communications, Bell Microproducts, Super Micro Computer

Busybox 2009 - The Lawsuits Continue...



Best Buy, Samsung, Westinghouse, and JVC are among the 14 additional consumer electronics companies named in a single lawsuit.

Busybox Outcome



The GPL stands up in court time and time again.





Microsoft[®]

ZFS



Sometimes there is a conflict





Court Case: FSF Alleged that the Linksys consumer network equipment division had 13 products which infringed OSS Licenses including its popular consumer wireless routers.



Outcome: Win for the FSF and OSS

Cisco will make a monetary donation to the FSF and appoint a Free Software Director for ensured future compliance.



How can I use OSS and be safe?

Know what you have





Use Version Control









Choose an appropriate license





Questions ?







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2

Abstract



With a string of legal decisions favorable to open source having been handed down recently, and IBM's fairly strong backing,

open source has become an increasingly viable option for enterprise deployment, even in a System z environment.



Eli Dow really helped me out with this presentation. It is as much his as it is mine.

We are both open source guys and care greatly about it success



This is me. I am here to help. I include this chart so that people can have my email.



- •This talk assumes you know about, or have some interest in, OSS
- •The next few slides are meant to convey a sense of excitement into why OSS has taken off so rapidly.
- •



http://en.wikipedia.org/wiki/Linus'_Law

Given enough eyeballs, all bugs are shallow



There are people all over the world that use and contribute to OSS.

This could mean 24 hour development and test, better nationalization support, and a wider audience.



By being able to look at the source of a project, one can make more innovative inputs. They also have a sense of pride knowing that they made something better.



Having anyone be able to modify the source means that you don't have to make the changes yourself. It also meas that adding feature x might be easier since feature x might be implemented by some other library that you just have to reuse.



Image from

http://www.flickr.com/photos/thetruthabout/26653762 74/

- Reduced or shared maintenance burden. Note that it is not possible to just dump code over the wall and expect someone else to maintain it.
- Lower cost of development when consuming existing libraries or code. Quicker time to market, with lower overall development expense from fewer lines of code written.



Now that we have revisited some of the compelling reasons to use open source software in the enterprise, lets move on to the second topic from our roadmap and look at some of the open source licenses available.

Before diving straight into specific open source licenses, we need to come to an understanding of what it means to be an open source license in the first place...

So who decides what is open source? The OSI (Open Source Initiative).

The Open Source Initiative (OSI) is a nonprofit corporation formed to educate about and advocate for the benefits of open



Open source doesn't just mean access to the source code.

The distribution terms of open-source software must comply with the following criteria:


- The license shall not restrict any party from selling or giving away the software as a component of an aggregate software distribution containing programs from several different sources. The license shall not require a royalty or other fee for such sale.
- Rationale: By constraining the license to require free redistribution, we eliminate the temptation to throw away many long-term gains in order to make a few short-term sales dollars. If we didn't do this, there would be lots of pressure for cooperators to defect.



- The program must include source code, and must allow distribution in source code as well as compiled form. Where a product is not distributed with source, there must be a well-publicized means of obtaining the code for no more than a reasonable reproduction cost.
- Preferably, downloading via Internet without charge. Code must be the preferred form in which a programmer would modify the program. Deliberately obfuscated source code is not allowed. Intermediate forms such as the output of a preprocessor or translator are not allowed.
- Rationale: We require access to un-obfuscated source code because you can't evolve programs without modifying them. The purpose is to make evolution easy, so we require that modification be made easy.
- As we will see later this apparently simple issue is one of the single largest instigators of open source lawsuits.



- The license must allow modifications and derived works, and must allow them to be distributed under the same terms as the license of the original software.
- Rationale: The mere ability to read source isn't enough to support independent peer review and rapid evolutionary selection. For rapid evolution to happen, people need to be able to experiment with and redistribute modifications.



Image from

http://www.flickr.com/photos/contemplativechristian/2538196687/si zes/l/

- The license may restrict source-code from being distributed in modified form only if the license allows the distribution of "patch files" with the source code for the purpose of modifying the program at build time. The license must explicitly permit distribution of software built from modified source code. The license may require derived works to carry a different name or version number from the original software.
- Rationale: Encouraging lots of improvement is a good thing, but users have a right to know who is responsible for the software they are using. Authors and maintainers have reciprocal right to know what they're being asked to support and protect their reputations.
- Accordingly, an open-source license must guarantee that source be readily available, but may require that it be distributed as pristine base sources plus patches. In this way, "unofficial" changes can be made available but readily distinguished from the base source.



Image from

- http://www.flickr.com/photos/matsubatsu/3812495997/s izes/l/
- The license must not discriminate against any person or group of persons.
- Rationale: In order to get the maximum benefit from the process, the maximum diversity of persons and groups should be equally eligible to contribute to open sources. Therefore we forbid any open-source license from locking anybody out of the process.
- Some countries, including the United States, have export restrictions for certain types of software. An OSD-conformant license may warn licensees of applicable restrictions and remind them that they are obliged to obey the law; however, it may not incorporate such restrictions itself.



- The license must not restrict anyone from making use of the program in a specific field of endeavor.
- Example: it may not restrict the program from being used in a business, or from being used for genetic research.
- Rationale: The major intention of this clause is to prohibit license traps that prevent open source from being used commercially. We want commercial users to join our community, not feel excluded from it.

7. Distribution of License



Image

http://www.flickr.com/photos/chris_radcliff/2725774710/ The rights attached to the program must apply to all to whom the program is redistributed without the need for execution of an additional license by those parties.

Rationale: This clause is intended to forbid closing up software by indirect means such as requiring a non-disclosure agreement.



- The rights attached to the program must not depend on the program's being part of a particular software distribution.
- If a program is extracted from some distribution and then used or distributed within the terms of the program's license, all parties to whom the program is redistributed should have the same rights as those that are granted in conjunction with the original software distribution.
- Rationale: This clause forecloses yet another class of license traps.



- The license must not place restrictions on other software that is distributed along with the licensed software.
- Example: the license must not insist that all other programs distributed on the same medium must be open-source software. This is a common misconception even among self proclaimed OSS experts.
- Rationale: Distributors of open-source software have the right to make their own choices about their own software.
- Yes, the GPL conforms with this requirement. Software linked with GPLed libraries only inherits the GPL if it forms a single work, not any software with which they are merely distributed.



- No provision of the license may be predicated on any individual technology or style of interface.
- Rationale: This provision is aimed specifically at licenses which require an explicit gesture of assent in order to establish a contract between licensor and licensee. Think about provisions mandating so-called "click-wrap" which may conflict with important methods of software distribution such as FTP download, CD-ROM anthologies, and web mirroring.

So now that we have seen the rules for calling a license Open Source, lets look at some concrete licenses...





Version 2 came out in 1989 Allowed for source as well as binary Allowed for combination will other software as long as it was not more restrictive

Version 2 came out in Liberty or Death clause Basically if some other entity prevents the author from distributing, then one can not distribute at all



June 19th 2007 Had precautions for software patents and hardware restrictions

See http://en.wikipedia.org/wiki/Tivoization



Allows linking to binary objects without viral issues

Basically it does not place restrictions on software that links with it, only on the software itself.



Does not require that modified software continue to use the same license

Every version must have the previous version license, with a notification of the change being made.

Compatibly with GPL3 but not 1 or 2



There are basically 2 BSD style licenses: New BSD

- •Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- •Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- •Neither the name of the <organization> nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

Simple BSD

- 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.



Attribution alone (by)

- Attribution + Noncommercial (by-nc)
- Attribution + NoDerivatives (by-nd)
- Attribution + ShareAlike (by-sa)
- Attribution + Noncommercial + NoDerivatives (by-ncnd)

Attribution + Noncommercial + ShareAlike (by-nc-sa)

Comparison					
	BSD	Apache	GPLv2	LGPL	GPLv3
Copyleft ?	No	No	Strong	Weak	Strong
Distribute Object Code without providing source code?	Yes	Yes	No	No	No
Distribute Derivatives Under a different License ?	Yes	Yes	No	No	No
Copyright Notice Required ?	Yes	Yes	Yes	Yes	Yes
Disclaimers Required ?	Yes	Yes	Yes	Yes	Yes
Copy of License Required ?	No	Yes	Yes	Yes	Yes
Notice of Changes Required ?	No	Yes	Yes	Yes	Yes
Legal Information Required ?	No	No	No	No	No 31

Source :

By Daliah Saper Saper Law Offices, LLC 500 N Dearborn, Suite #1200 Chicago, IL 60610 http://www.saperlaw.com



We will talk about just a few of the higher profile open source contributions IBM has made over the last few years including:

The Eclipse IDE Apache Derby Apache Geronimo Open Source Software on z/OS (USS?) The "IBM Patent Pledge"



Eclipse was an IBM effort in the late 90s to make a better java development tool. In 2001 it was released under the eclipse public license

This is not compatible with the GPL



Embedded Java relational database. Used to be IBM cloudscape.



Geronimo is a J2EE server (5.0)

IBM has given this project a number of contributions. It is the core to IBM WebSphere Application Server Community addition.



http://www-03.ibm.com/systems/z/os/zos/features/unix/bpxa1ty

IBM complies a number of OSS tools for it MVS environment.



Image from

http://www.flickr.com/photos/crimsonninjagirl/2246689881/

~500 Patents

The pledge will benefit any Open Source Software. Open Source Software is any computer software program whose source code is published and available for inspection and use by anyone, and is made available under a license agreement that permits recipients to copy, modify and distribute the program's source code without payment of fees or royalties. All licenses certified by opensource.org and listed on their website as of 01/11/2005 are Open Source Software licenses for the purpose of this pledge..



Civil lawsuit in the US District Court of Utah. The SCO Group (formerly Caldera Systems) asserted legal uncertainties regarding the use of the Linux operating system due to alleged violations of IBM's Unix licenses in the development of Linux code at IBM.



- \$1 billion lawsuit in the US for allegedly "devaluing" sco UNIX.
- Alleged damages later increased to \$3 billion then \$5 billion.



Claims/counter-claims then escalated, IBM and & Red Hat started legal action against SCO. SCO then threatened Linux users who do not take out SCO UNIX licenses. SCO sued Novell, AutoZone and DaimlerChrysler.



- Its the usual story. Boy meets Linux, Boy (and his friends) gets sued by SCO. SCO loses. SCO goes broke. SCO brings Boy back to court and loses again.
- August 10, 2007, Judge Kimball, presides over the SCO v. Novell case. Ruled that Novell, not SCO, is the rightful owner of the Unix OS copyrights.
- After the ruling Novell announced they have no interest in suing people over Unix and stated "We don't believe there is Unix in Linux".
- 21 September 2007, Kimball administratively closed SCO v. IBM due to SCO filing for bankruptcy on 14 September 2007. All action in SCO v. IBM is stayed until SCO emerges from bankruptcy proceedings.

But it was not over...

On August 24, 2009, U.S. Court of Appeals (10th Circuit) reversed the portion of the August 10, 2007 district court which provided summary judgment that Novell owned the copyright to Unix. As a result, SCO permitted to pursue its claim of ownership of Unix copyrights at trial.



- Outcomes, ... well we wish it was over so we could concretely say something 100% conclusive and retrospective.
- It is a bit like bringing down a Zombie. It takes a long time and a lot of energy to defeat the walking dead.
- But it seems that for now Novell is declared the copyright holder of Unix, and they don't want to sue you for using Linux.
- Additionally, as near as I can infer, there is no proof they could hit you with a lawsuit even if they wanted to, as no infringement has been proven to date. My personal reading of the case indicates there is no infringement to worry about.



http://en.wikipedia.org/wiki/Hercules_emulator

- There is no legal restriction that prevents running the open source operating systems Linux on System z and OpenSolaris for System z on the Hercules emulator.
- Older IBM operating systems including OS/360, DOS/360, DOS/VS, MVS, VM/370, and TSS/370 are either public domain or "copyrighted software provided without charge."
- Newer licensed operating systems, such as OS/390, z/OS, VSE/ESA, z/VSE, VM/ESA, z/VM, TPF/ESA, and z/TPF are technically compatible but cannot legally run on the Hercules emulator except in very limited circumstances.
- IBM's Coupling Facility control code, which enables Parallel Sysplex, is also licensed, as is UTS.



TurboHercules SAS was founded in 2009 to commercialize the Hercules technology.

- On July 29, 2009, TurboHercules SAS asked IBM to allow IBM customers to license z/OS.
- On November 4, 2009, in a letter to TurboHercules, IBM declined, citing its policy against licensing its software on systems that it alleges may infringe its intellectual property (IP).
- On November 18, TurboHercules requested a list of allegedly infringing IP.
- On March 11, 2010, IBM provided TurboHercules a "non-exhaustive list" of 106 patents and 67 patent applications. The list included numerous hardware patents including two patents which IBM had previously pledged to the open source community.
- On March 23, 2010, TurboHercules SAS filed a complaint with European Union regulators, alleging that IBM is engaging in anti-competitive practices. To date IBM has not issued a cease and desist letter



- 1st US lawsuit over GPL violation. Concerned use of BusyBox in an embedded device. 20 September 2007 against Monsoon Multimedia Inc. Code discovered in firmware upgrade, attempts to contact the company failed. Settled w/ release of Monsoon version of src and payment of an undisclosed amnt.
- 21 Nov 2007, 2 similar suits against Xterasys & High-Gain Antennas. Xterasys settled on December 17 for release of source code used & undisclosed payment. High-Gain Antennas, March 6, 2008 -> active license compliance & undisclosed payment.
- 7 December 2007, case against Verizon Communications over firmware for Actiontec routers that it distributes. Settled March 17, 2008 on condition of license compliance, appointment of an officer to oversee future compliance with free software licenses, and payment of an undisclosed sum.
- June 9, 2008 against Bell Microproducts and Super Micro Computer. Super Micro settled 23 July 2008.[23]. Bell Microproducts settled out of court 17 October 2008.



- New York, NY, December 14, 2009 Best Buy, Samsung, Westinghouse, and JVC are among the 14 consumer electronics companies named in a copyright infringement lawsuit filed by the Software Freedom Law Center (SFLC).
- The SFLC is a non-profit law firm established in 2005 to provide pro-bono legal services to Free and Open Source Software (FOSS) developers.
- The suit charges each of the defendants with selling products containing BusyBox in violation of the terms of its license, the GNU General Public License version 2 (GPLv2).
- Including Best Buy's Insignia Blu Ray DVD Player, Samsung HDTVs, Westinghouse's 52-inch LCD Television, and more than a dozen other products that the defendants have continued to sell without the permission of the software's copyright holders. Under the terms of the GPLv2, anyone can view, modify, and use the program for free on the condition that they distribute the source code to customers.
- The SFLC confirmed BusyBox violations in nearly 20 separate products cited in the complaint and gave each defendant ample time to comply with the requirements of the license.

License:GNU General Public License Website: http://www.busybox.net



Outcomes: In each of these cases which has been resolved, there has been a settlement. The majority involved an undisclosed sum of money.

Most infractions stem from OSS Definition Part 2: Making Available Source Code

So far busybox has been one of the central instigators of OSS law suits. This is likely because it is the go-to option for embedded Linux shells.

So the court outcomes are that in each of these cases which are resolved, there has been a settlement, with the majority involving undisclosed money.

License:GNU General Public License Website: http://www.busybox.net



http://en.wikipedia.org/wiki/Novell#Agreement_with_Microsoftw

- On Nov. 2rd 2006, it was announced that Novell and Microsoft joined in a patent agreement. They were hoping that it would help create better synergy between the two companies
- This is why we have GPLv3 Section 11 paragraph 7, to prevent this kind of thing, but this deal has been granfathered int



- Zetta Byte Filesystem and logical volume manger made by SUN, under the CDDL
- NetAPP's Write Anywhere File Layout (WAFL) is similar.
- In Sept 2007 NetAPP sued Sun saying sun infringed on its patents.

After a series of Court ruling, it seems that Sun is winning it case. http://www.sun.com/lawsuit/zfs/


- Linux ports of ZFS are difficule because the linux kernel's GPL and ZFS's CDDL are not compatible
- The current solution is to run it in a userland filesystem, like FUSE



1) Cisco and the FSF have been working together since 2003 to ensure licensing compliance, according to the FSF. It took time before legal action.

The Bad:

- The FSF filed copyright infringement lawsuit in New York against Cisco seeking an injunction.
- Alleged the Linksys consumer network equipment divisions violated the license terms of OSS shipped with the Linksys WRT54G wireless "G" network router. Cisco purchased the linksys company and inherited this product offering. 13 Linksys products were listed as offenders, including its popular consumer wireless routers.
- FSF alleged that since 2006 Cisco publicly distributed firmware containing FSF's programs in products "without providing complete and corresponding source code or an offer for source code as required by the Licenses."
- Sought injunction keeping Cisco from distributing the 13 products, and damages decided by jury. Also asked court to make Cisco give up profits from the products in dispute. Sought that Cisco appoint a Free Software Compliance Officer to ensure OSS compliance going forward.
- Source code downloads from cisco were often incomplete or out-of-date. Cisco provided written offers for source, but were allegedly going unfulfilled.



- Outcome: FSF settled the GPL compliance lawsuit with Cisco.
- Under the terms of the settlement, Cisco will make a monetary donation to the FSF and appoint a Free Software Director to conduct continuous reviews of the company's license compliance practices.
- Note: Aside from its Linksys division, Cisco is a fairly major contributor to the Linux kernel.
- This concludes our tour of legal action. We now move on to the last part of our roadmap...



- This slide sort of assumes you still want to use open source software.
- I would suggest that given the court cases studied today, along with the described benefits of OSS, that it is a completely reasonable position.
- But how do we ensure we are "safe". The simple answer is to know what you have, educate your coworkers, involve legal, and comply with the licensing terms of the OSS you use.
- Lets look at each of those steps a bit more...



- If you are not shipping any open source software, and are simply using open source software as a platform to build your own applications, there is virtually nothing you need to worry about. (This stems from our discussion of the Novell side of the SCO case).
- At present, no one is claiming they will sue you for running Linux if you are not a distributor of Linux.
- If you do ship embedded Linux, you are likely using busybox and should strive for compliance!
- If you ship other software which links to open source software, or otherwise is licensed as such, then you should make the code readily available at reasonable cost. This prevents the vast majority of cases we have studied today from applying to you.



Educate your end users, developers and sellers. If every one in your company knows what they can and can not do with OSS this will greatly reduces your risk.



- By using version control systems for your software development projects, you can ensure the development trail of your software if an infringement claim is ever brought against you.
- There are 3 open source examples shown here, Subversion, Git, and Mercurial.
- IBM also ships a solution called Rational Clear Case which is also listed.
- Using version control systems for your software development projects, you can ensure the development trail of your software if an infringement claim is ever brought against you.



If you are distributing your code, ensure that you have the appropriate license, and that it complies with all other licenses that you have incorporated in your project.



Always include your legal team from the beginning. This ensures compliance and arms them with the correct information should a legal action need to be taken or defended.

