




CORPORATE PARTICIPATION WITH OPEN SOURCE COMMUNITIES



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Free & Open Source Software (FOSS) Review

Examples of Open Source Software



Benefits of Using Open Source Software

Participation in the Open Source Community can bring many benefits to an organization's business

Software has zero marginal cost

Source code can be customized to meet specific needs

Low-cost tools for software development and distribution are widely available

Minimize development costs

Decrease time-to-market for software products and solutions

Open Source Software is Three Things



Licenses

Obligations set forth by owners of a particular work – such as software – that govern the use of their work.



Community

An Open Source Community is a collection of developers and users with a common interest in the creation, enhancement, and support of a specific piece of Open Source software.



Methodology

Working with Open Source software requires a general methodology that guides Open Source development by the community. Although there is more than one Open Source methodology, most share certain characteristics such as open development.

- You can use all three as a competitive advantage
- The business model shifts to contribution and support
- The more you get involved, the more you can influence/control
- If you don't understand the licensing, you may expose proprietary information unintentionally

Open Source Software Licenses



Licenses

- More than 70 licenses today as recognized by OSI
- Two basic types of licenses
 - Reciprocal licenses that require code changes to be returned to the community at large. This type of license is also called a Copyleft license.
 - Licenses that permit modified versions to be retained as proprietary and permit arbitrary integration into proprietary software.

**Copyrights are still a core foundational element
of all Open Source licenses**

Open Source Community



- Any collection of developers with a common interest
- Historically made up of free agents
- Increasingly funded by large companies sharing development costs
- Governments and academia also contributing at an increasing pace
- Membership & “rank” within community based on individual’s reputation
- Corporate reputation plays a significant, yet secondary role

Open Source Communities are a meritocracy in the sense that reputation and influence are measured by sustained individual contributions rather than corporate directives.

Open Source Methodology

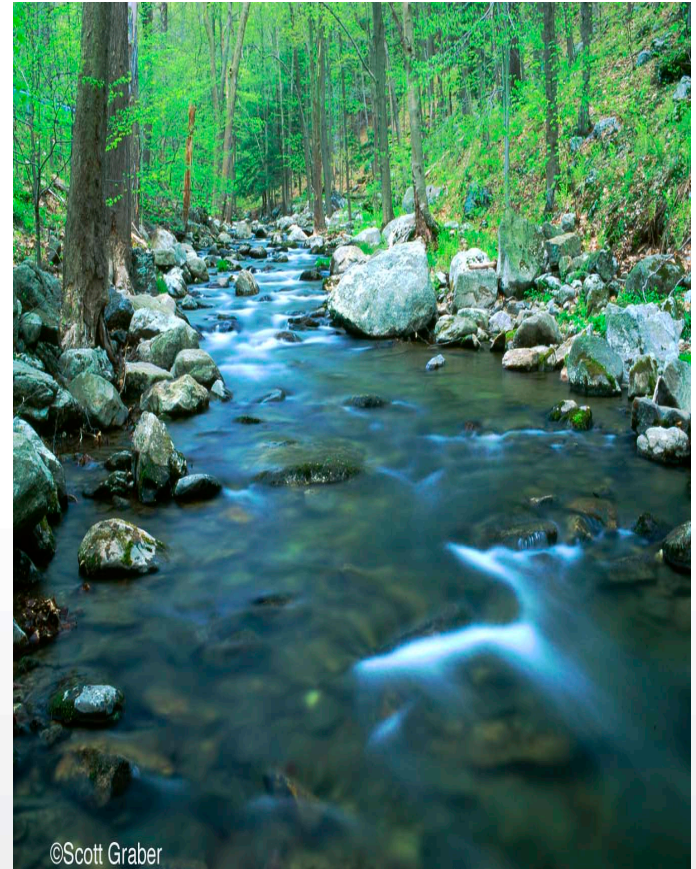


- Communal, shared development
- Various projects each with their own subculture
- Very few roadmaps, but some projects are starting to publish them
- Influence and control is achieved by being involved
- Individuals are largely in control, not companies

Governance models vary widely,
some autocratic, others consensus based

FOSS is Like a Natural Resource

- Think of Open Source as a “commons” of code similar to a natural resource
- Any Open Source project requires an ecosystem to survive
- Many businesses utilize the “commons” to bring products to market in some way
- Businesses that try to take without concern for the overall ecosystem get repelled by others
- Organizations exist for the sole purpose of protecting the commons (such as SFLC, OSI, FSF, Apache, LF, OW2, Eclipse)
- To succeed as a continuing resource, the “commons” must be protected from bad actors (poachers) and replenished over time (repopulation)
- A company’s relationship should be a symbiotic one



Interactive FOSS Trivia

Rights to Software

You find software on the Web that has no license. What can you do with it?

1. Anything you want – it is public domain
2. Nothing – you've been given no permissions

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Software is automatically protected by copyright law!

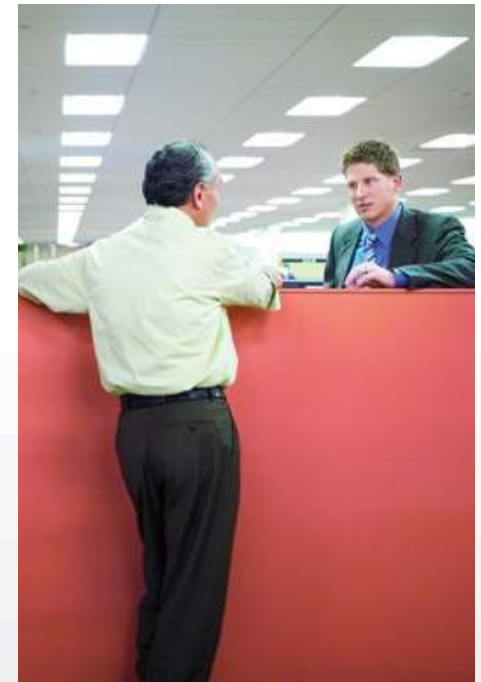
- The copyright owner’s permission is required in order copy, distribute, or modify.
- That permission is expressed in a license.
- You need a license for any software that was not developed by your organization.
- Need to do what the license requires in order to have the permission provided by the license.

Participating in the Open Source Community

FOSS is Different than Commercial Software

To use commercial software in your development process, you must go through

Procurement!



Evaluating Open Source Projects

Is the project healthy? Some things to consider are:

Determine the age of the project



Identify people. Who is involved in the project?



Know the date for last release.



Find out if questions on mailing list get answered.



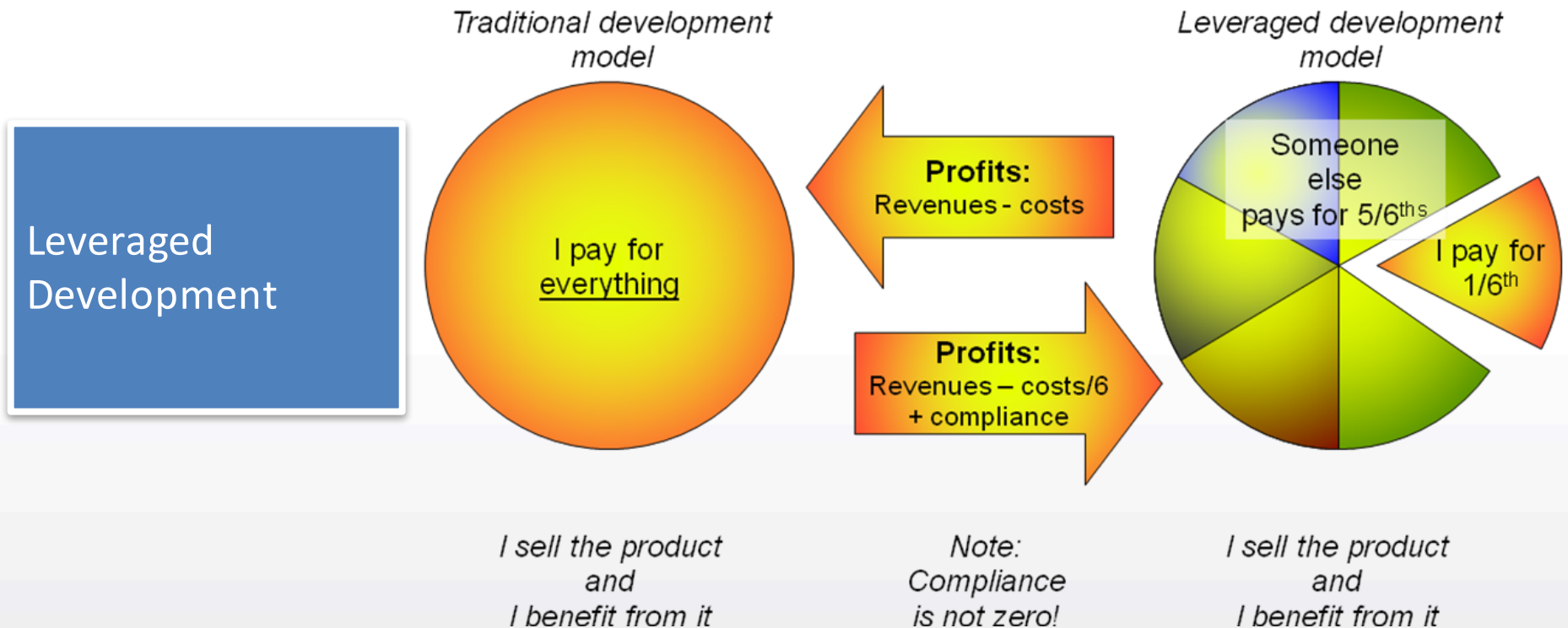
Are developers open to ideas from others on mailing list?



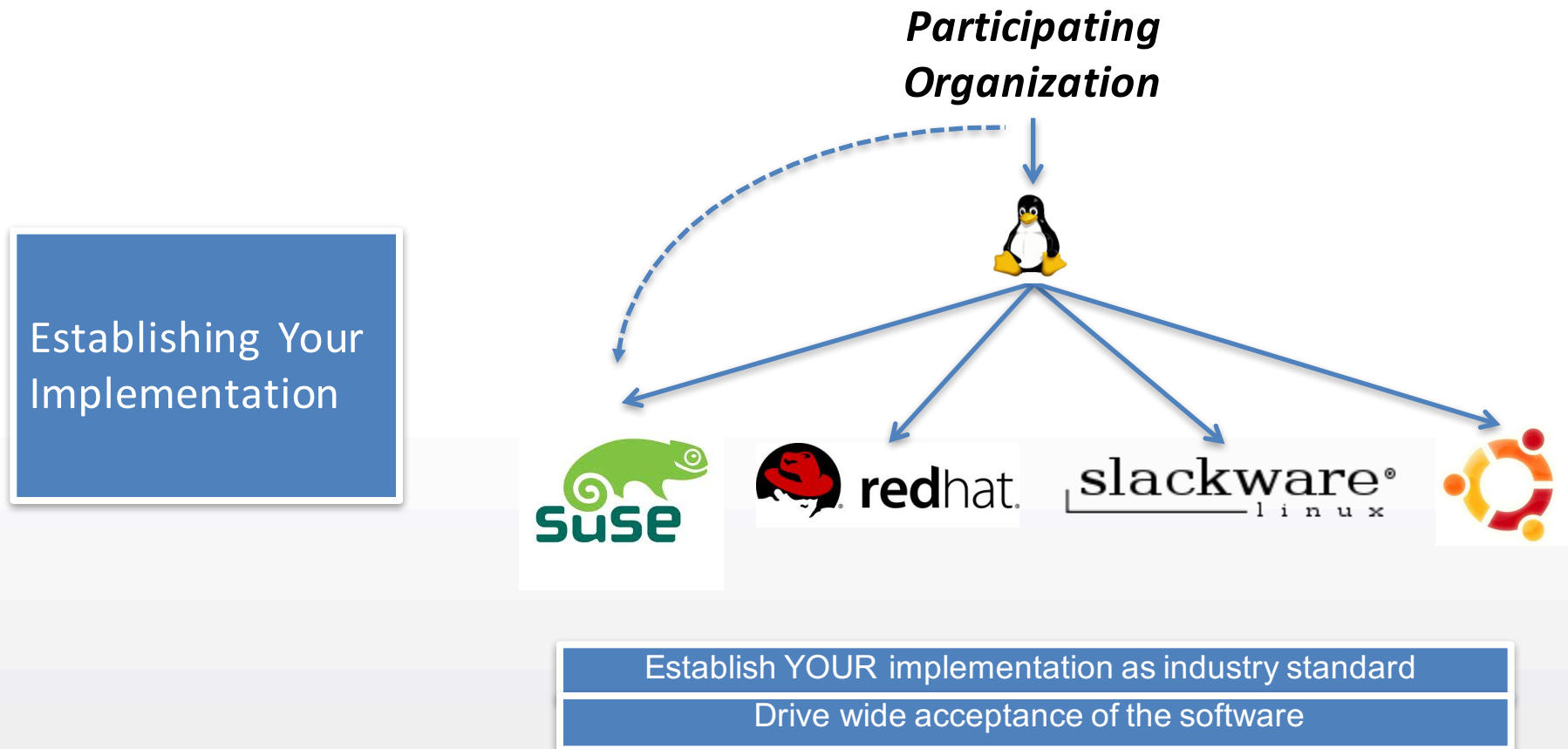
Do developers have a roadmap (formal or informal) for the project?



Why Participate in the Open Source Community?

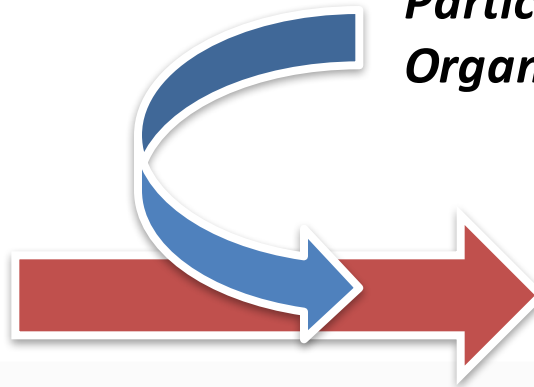


Why Participate in the Open Source Community?



Why Participate in the Open Source Community?

Personal Direction
and
Co-creation of
Value



***Participating
Organization***

Intellectual Stimulation / Improve Programming Skills*

Gain cooperation from the Open Community

**Level Between Boredom and Fear is Good*

Why Participate in the Open Source Community?

Embedded Design
and Market
Differentiation

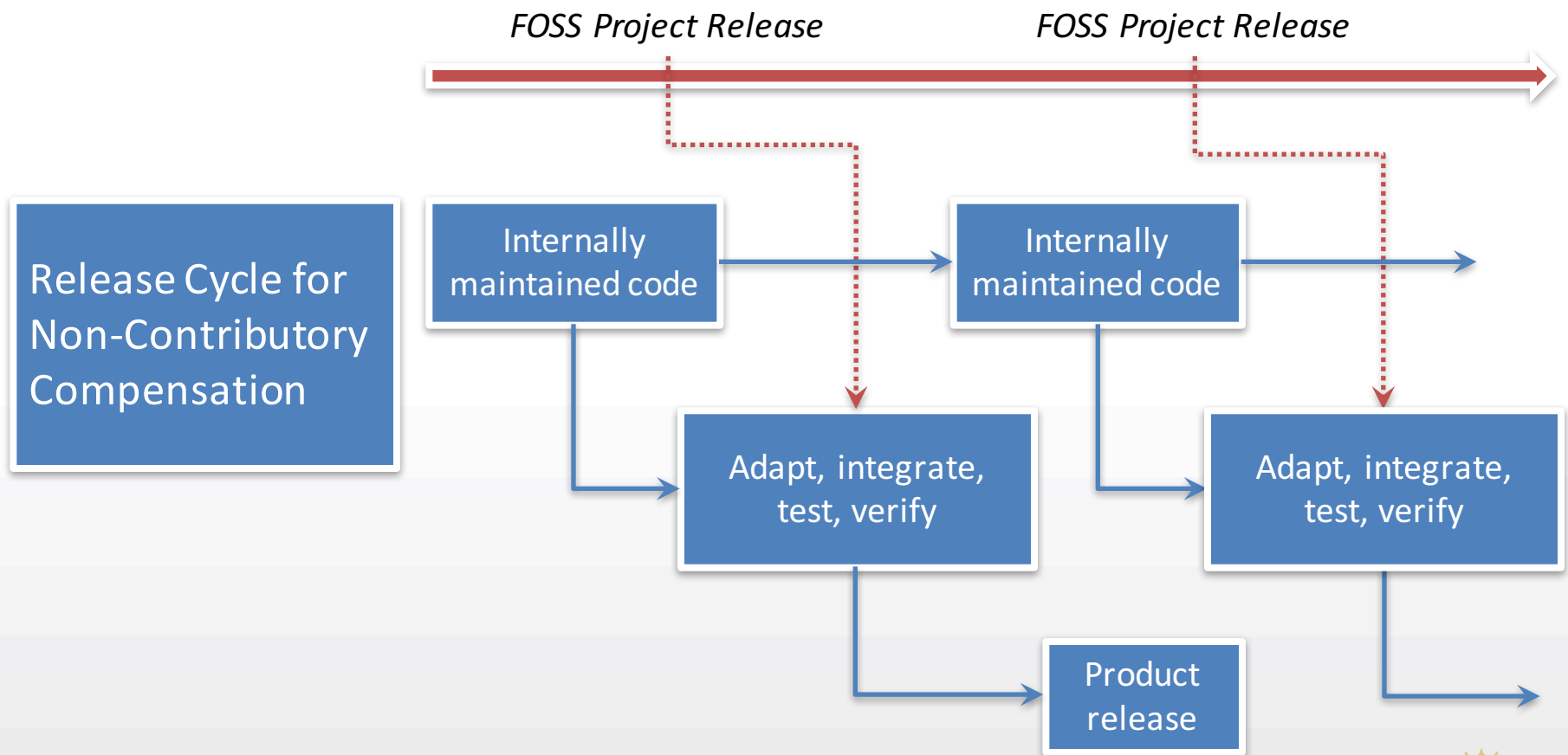


- Embedded Design
- Market Differentiation

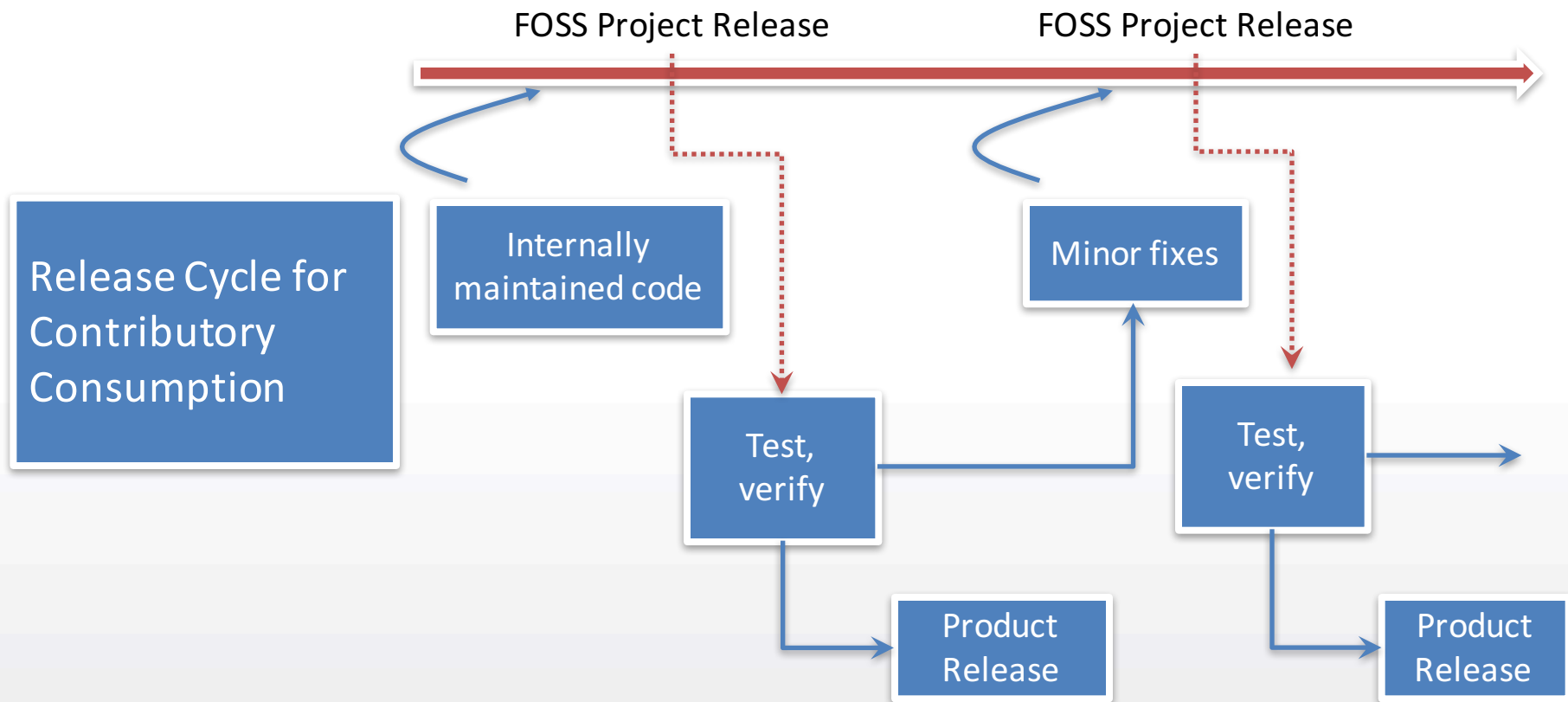


- Platform Dependence
- Architecture Dependence
- Market Standardization

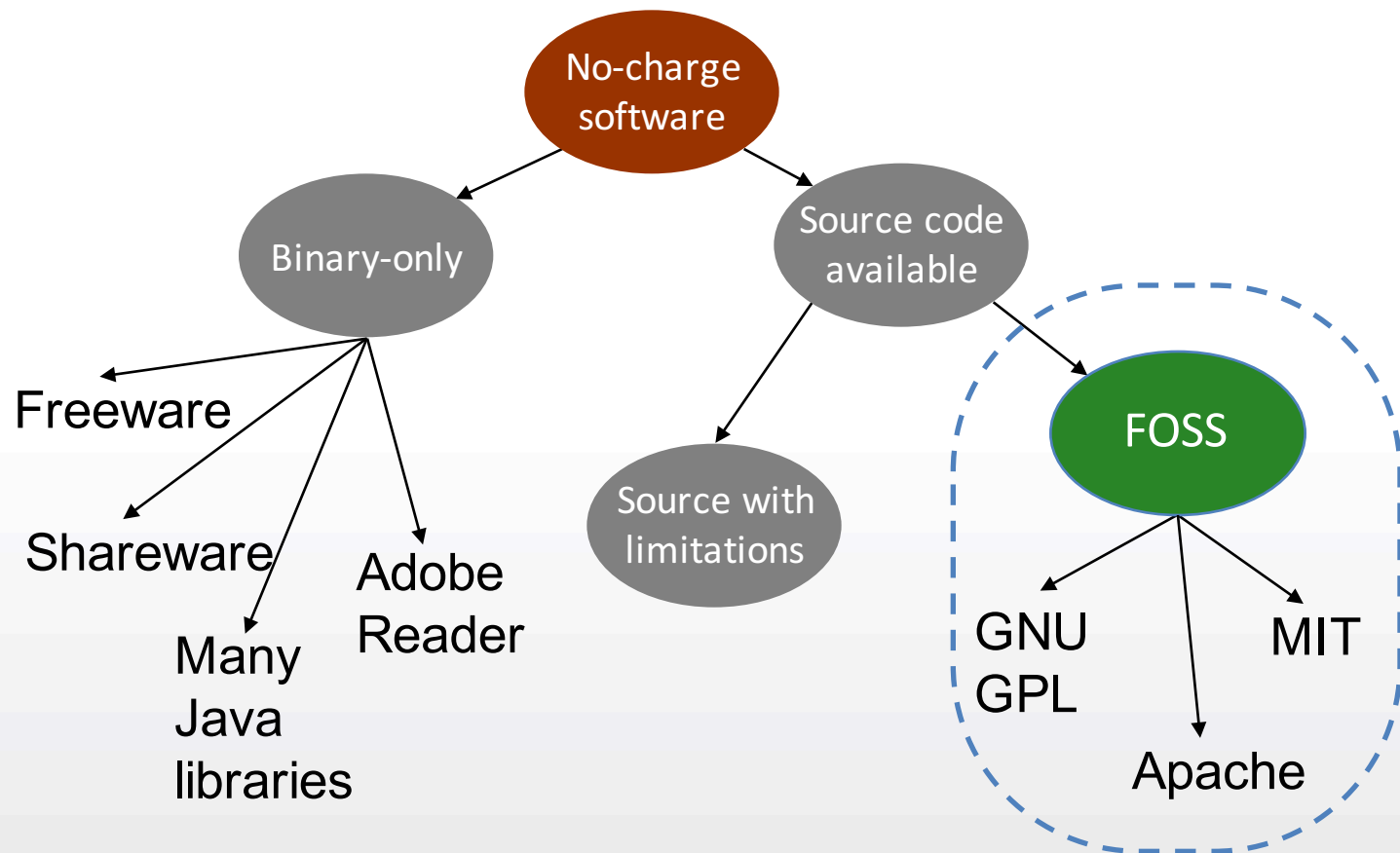
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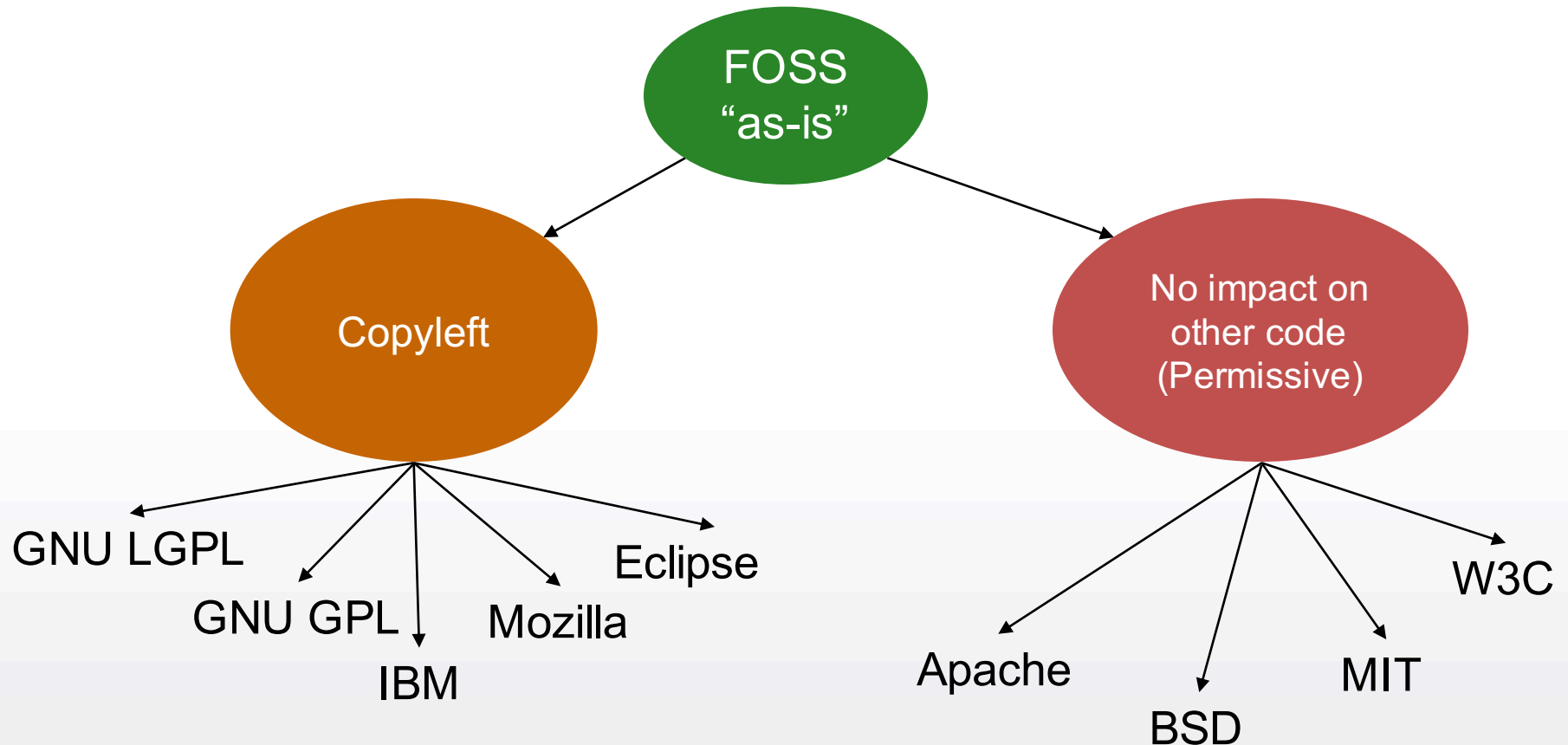
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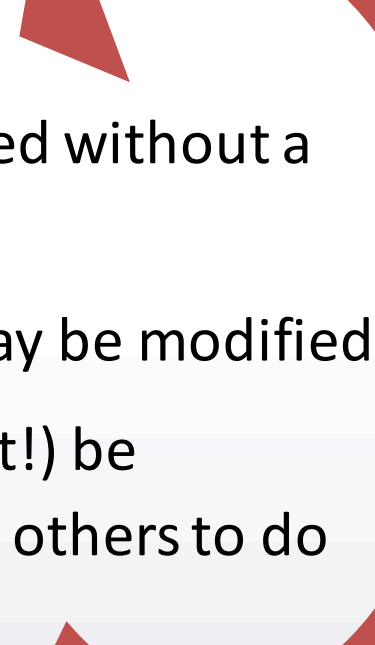
Free and Open Source Software is *Not* the Same as “Free” Software



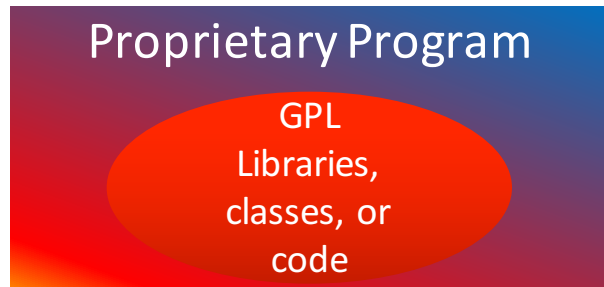
Two Types of FOSS Licenses



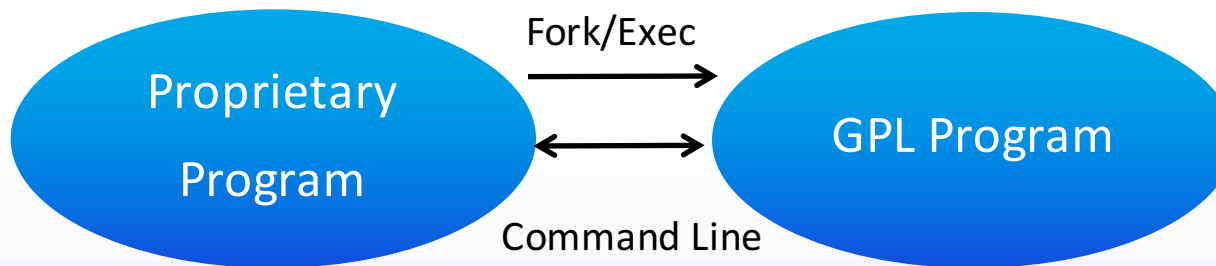
Major Characteristics of FOSS Licenses

- Provided “as-is”
 - Use and distribution is permitted without a need to pay fees
 - Source code is available and may be modified
 - Modified versions may (or must!) be distributed with permission for others to do all of the above
- 

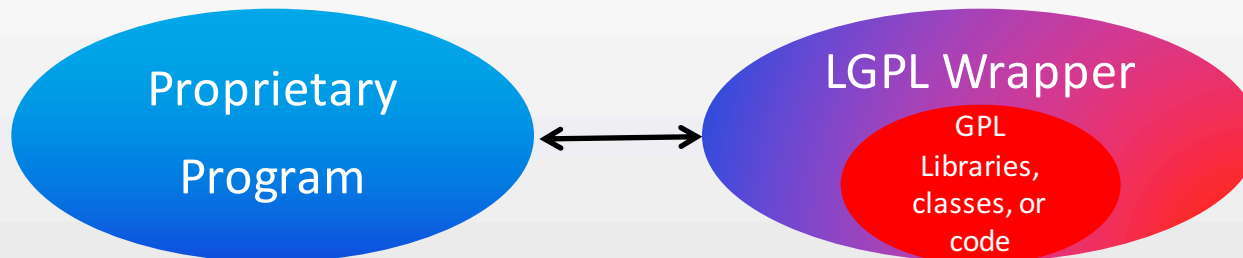
Derivative Works with the GPL



NO! – copy & paste or linking/loading
of GPL libraries/classes

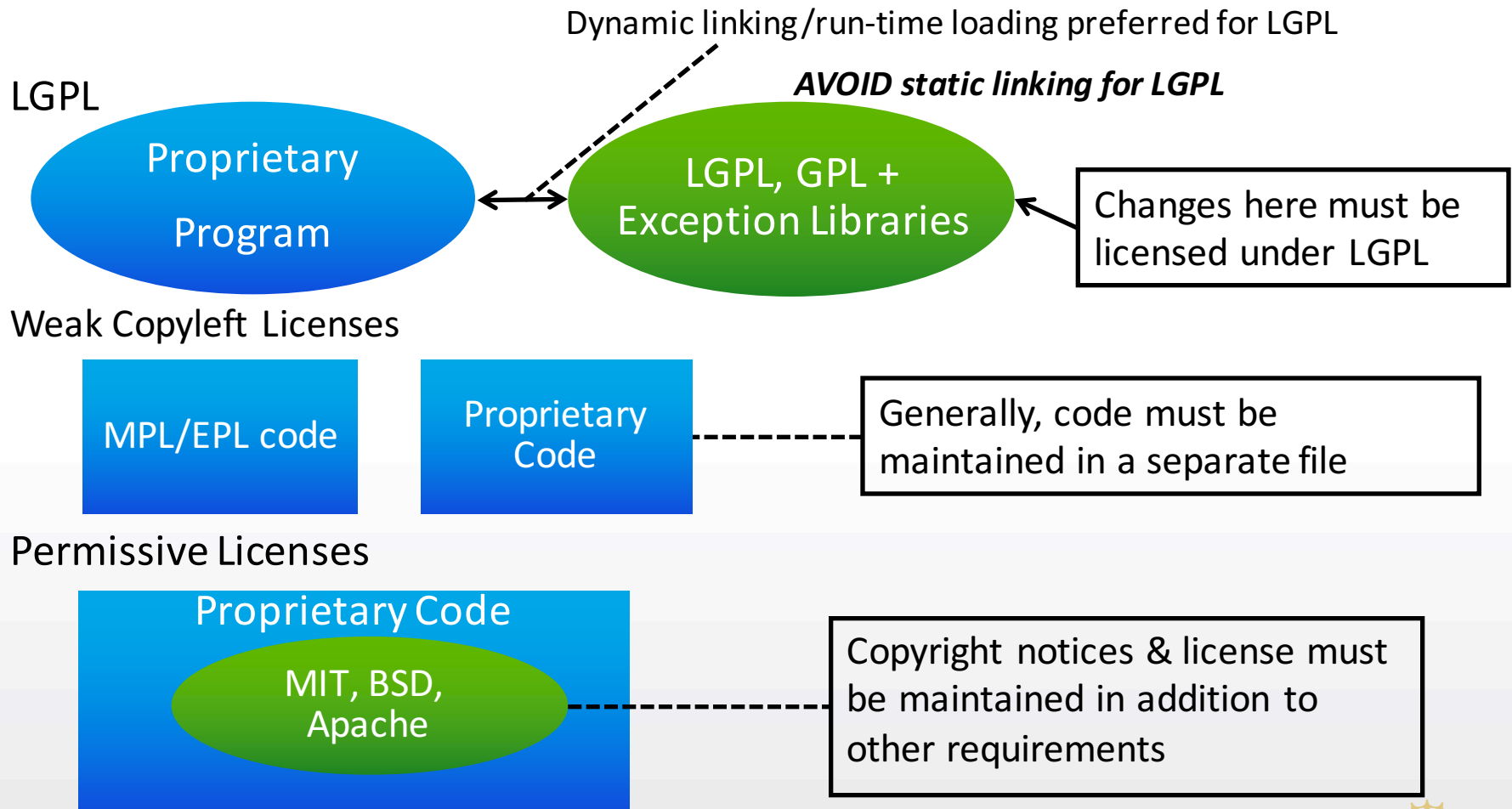


Generally OK. But,
there are exceptions!
(APIs are 'grey area')



NO!

Derivative Works (Other Licenses)



Fulfill Every Obligation in Every License

To understand the obligations, it is necessary to refer to the specific licenses in each case. Examples of obligations:

- Maintain copyright notices and copy of license
- Acknowledgement of the original author
- Make source code available
- Free licensing of organizational original source code when modifying or creating derivatives of copyleft code
- Investigate no assertions

If you have specific questions, talk to the attorney who supports your business group

Why Licenses are Important

The fact that a piece of software may be readily available for free does not mean that the software is in the public domain

The copyright owner's permission is required to copy, distribute, or modify source code

Open Source software selection choices have legal implications

Key message: Open Source Software is licensed

Interactive FOSS Trivia

Filing a Grievance

How many Linux (kernel or subsystem) developers does it take to file a grievance against an infringer to cause legal action?

- a. One – Any Linux maintainer
- b. All copyright holders of Linux acting together
- c. One – Any copyright holder of Linux
- d. One – Linus Torvalds
- e. None of the above

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It only takes one copyright holder to enforce a license for any given piece of Open Source

Replace “Linux” with any copyrighted work and the same applies (e.g. BusyBox)

Impact of Infringement

If one group in an organization infringes on glibc (LGPL), what impact does that have on the organization as a whole?

- a. The product group that infringes must stop shipping glibc
- b. All product groups within the organization must stop shipping glibc
- c. The organization is publically embarrassed and finds it more difficult to work with the community in the future
- d. All of the above

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MySQL

A product team chooses to use MySQL as the database for their product. The MySQL application is licensed under the GPL. Under which license must the product team's application be?

- a. Whatever license the organization wants to use
- b. GPL
- c. It depends

MySQL

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- a. Whatever license the organization wants to use
- b. GPL
- c. It depends...on how the connector libraries are licensed:
 - Connector libraries to MySQL used to be licensed under LGPL, allowing applications to choose whichever license they wanted, including proprietary
 - MySQL changed those connector libraries to be GPL several years ago

Open Source Review Policy and Processes

Sample Open Source Program Office

- Host the Open Source review process
 - Develop Tools/Automation
- Promote/encourage the use of and contribution to Free & Open Source software (FOSS) within
 - Training & consulting with product teams
 - Open Source website
- Promote organization in the community
 - Conference and organization sponsorships
 - External website
- Handle issues associated with organization's use of FOSS

Building a Case for Open Source

There are a number of reasons why using and contributing to Open Source is a good decision

Distribute the expense of maintaining software among many collaborators

Establish YOUR implementation as industry standard

Drive wide acceptance of the software

Enable sale of other products—both hardware and software

Gain cooperation from the Open Source Community

Generate favorable publicity or mindshare

Provide an inexpensive work-alike for a proprietary product

Thanks