



# CORPORATE PARTICIPATION WITH OPEN SOURCE COMMUNITIES

RESEARCH PROJECT FUNDED BY A GRANT FROM THE NATIONAL SCIENCE FOUNDATION'S VIRTUAL ORGANIZATIONS AS SOCIOTECHNICAL SYSTEMS PROGRAM



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# Free & Open Source Software (FOSS) Review

# Examples of Open Source Software



The **Apache Software Foundation**  
<http://www.apache.org/>



# 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

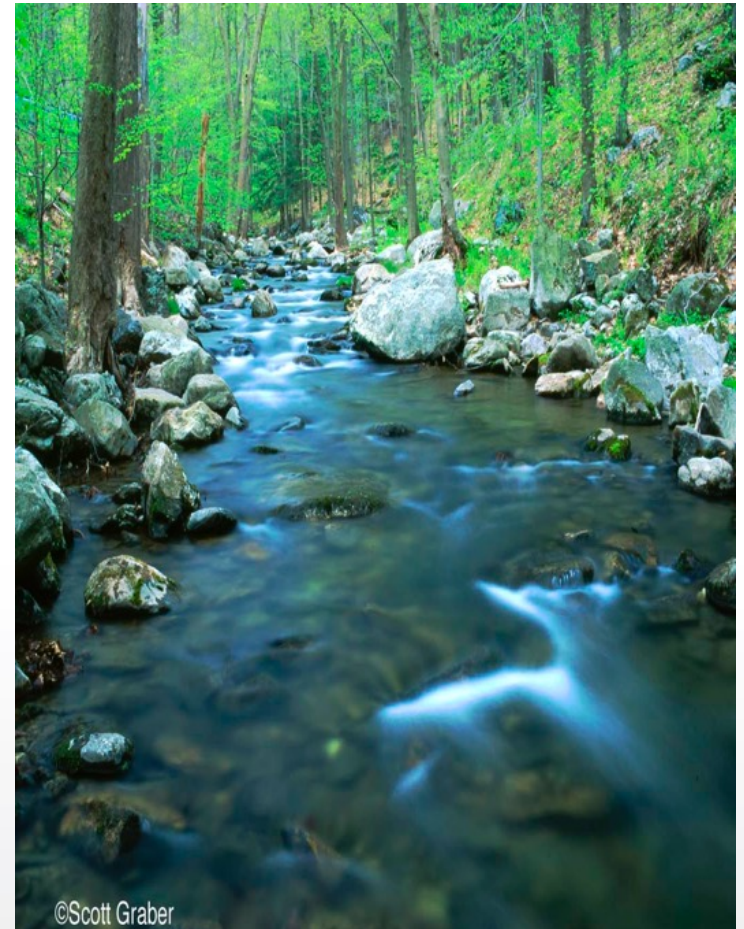
Working with Open Source software requires a general methodology that guides Open Source development by the community. Although there is more than one Open Source methodology, most share certain characteristics such as open development.

- 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



# 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

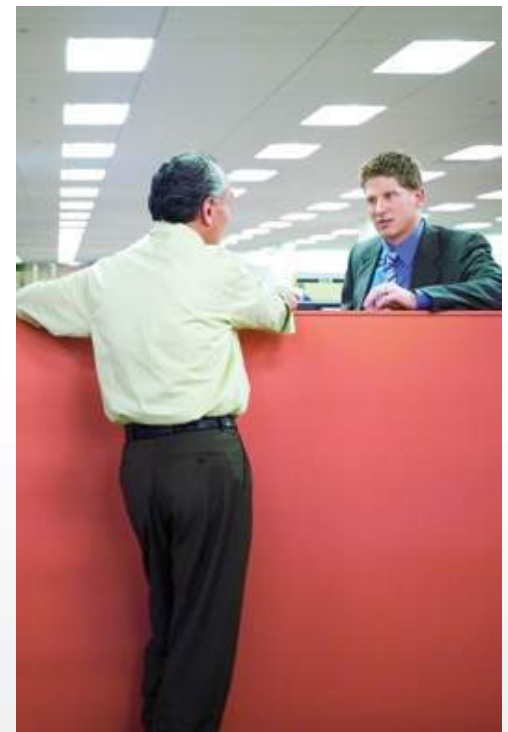


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# FOSS is Different than Commercial Software

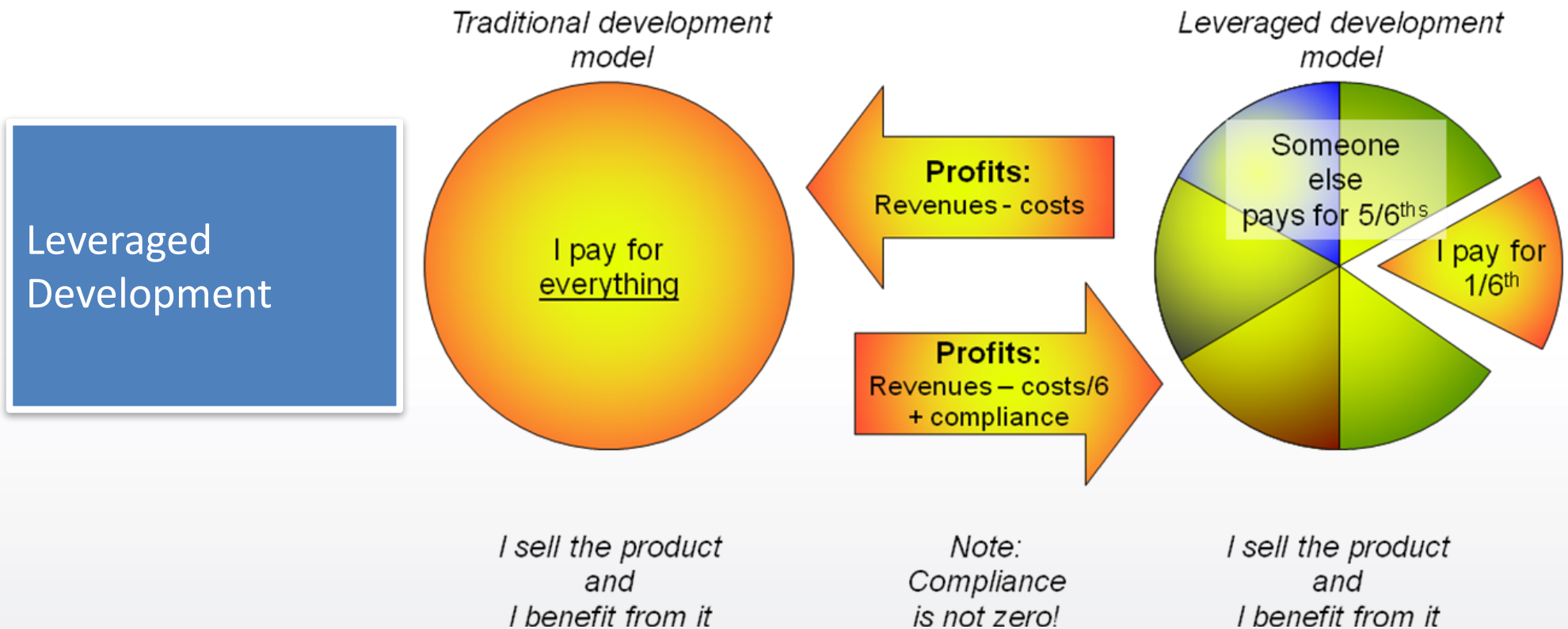
To use commercial software in your development process, you must go through ....

Procurement!



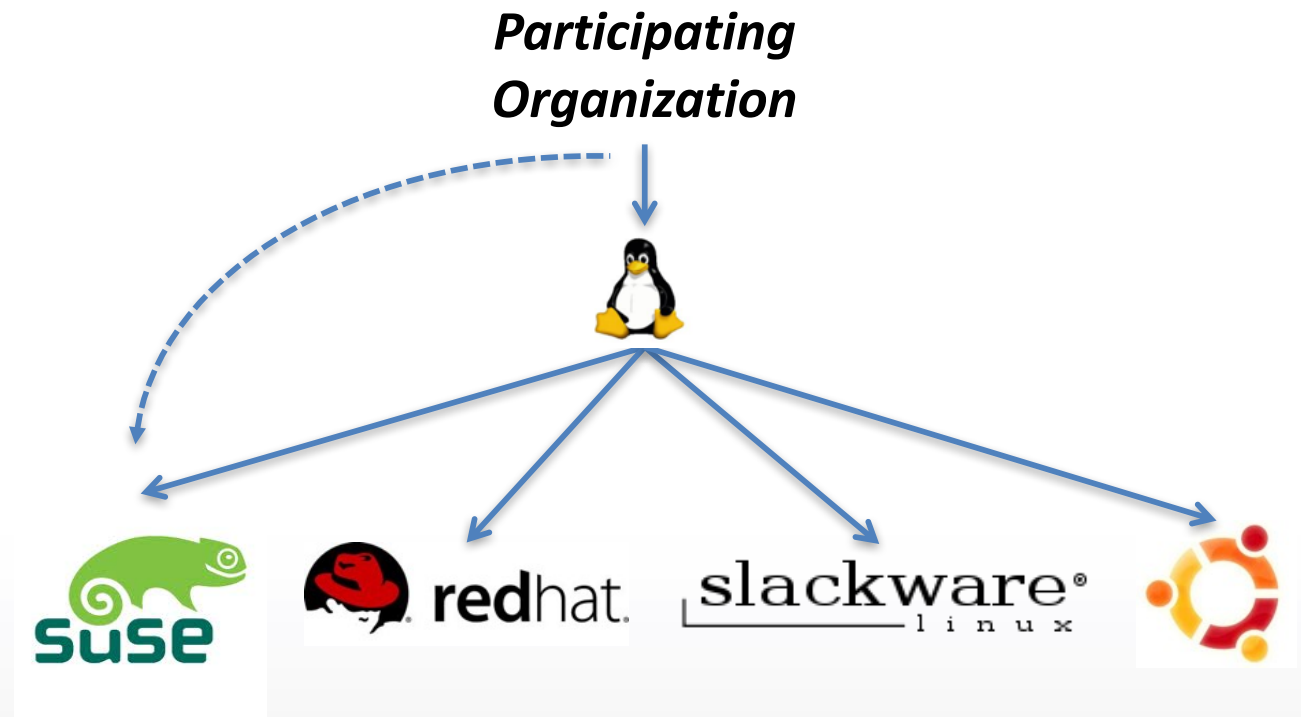


# Why Participate in the Open Source Community?



# Why Participate in the Open Source Community?

Establishing Your  
Implementation



Establish YOUR implementation as industry standard  
Drive wide acceptance of the software

# Determining Open Source Community Health

- Companies **SAMSUNG**

- Community Managers  **OPNFV**

- Foundations   
**mozilla**  
FOUNDATION

# Determining Open Source Community Health

CHA<sup>CO</sup>SS

# Determining Open Source Community Health



# Ok, You've Decided to Engage

## Interactive FOSS Trivia



# Determining Open Source Community Health



# 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

# Rights to Software

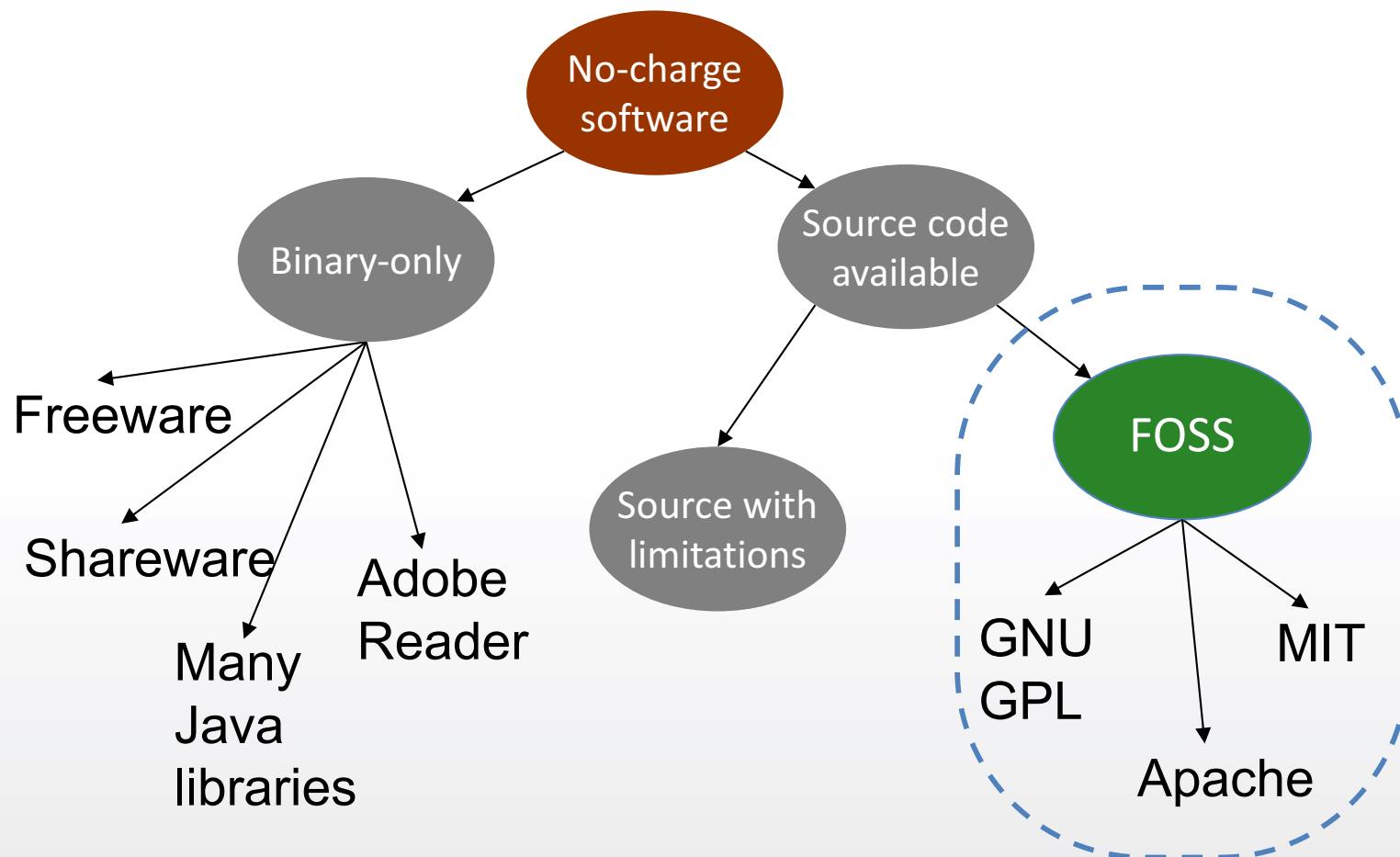
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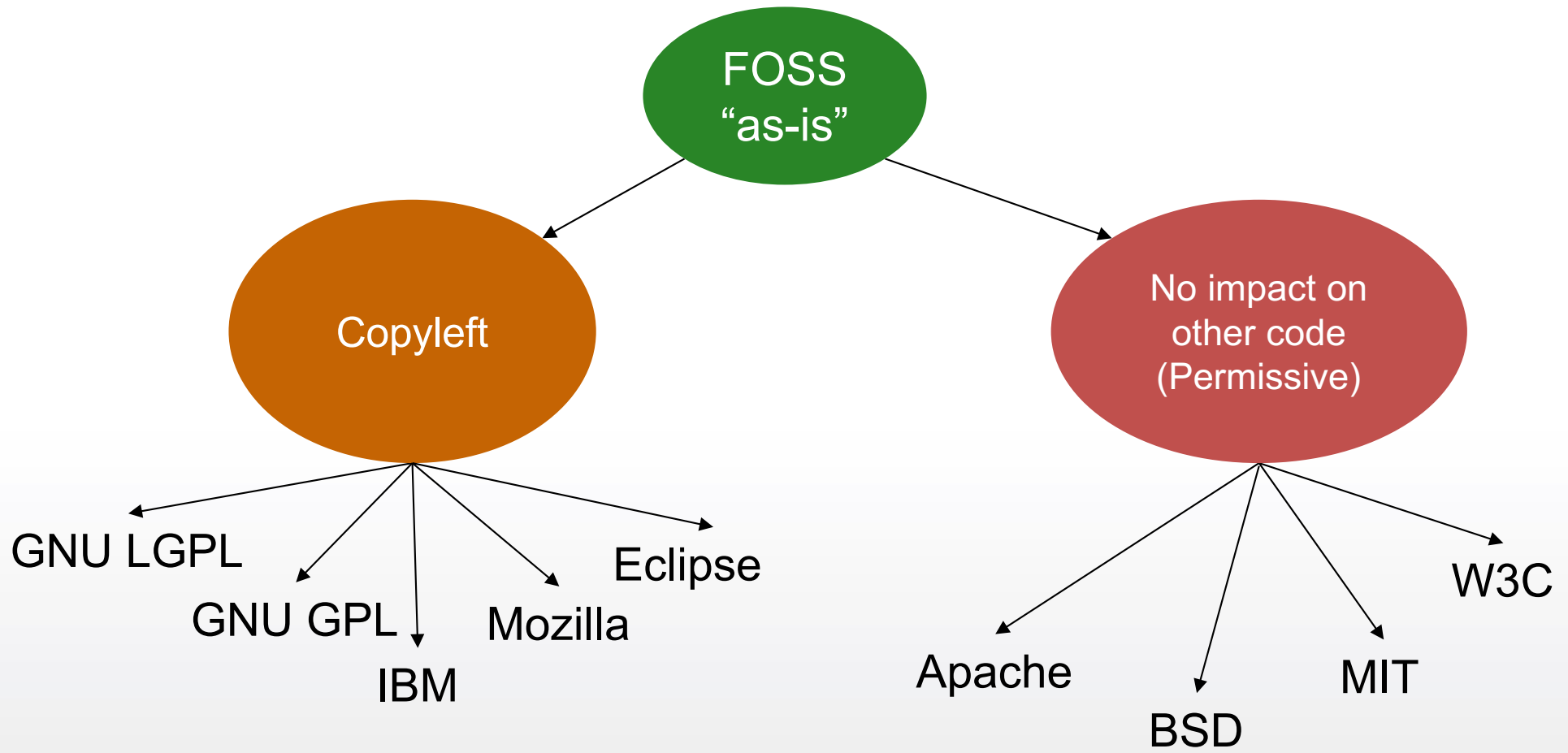
Software is automatically protected by copyright law!

- 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.

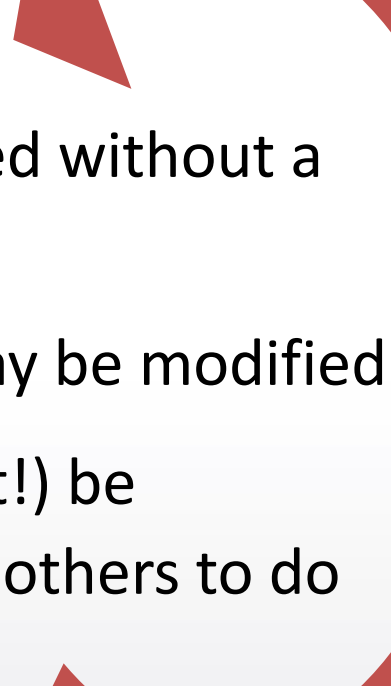
# Free and Open Source Software is *Not* the Same as “Free” Software



# Two Types of FOSS Licenses

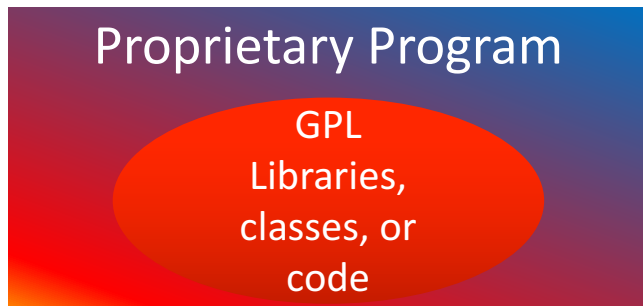


# Major Characteristics of FOSS Licenses

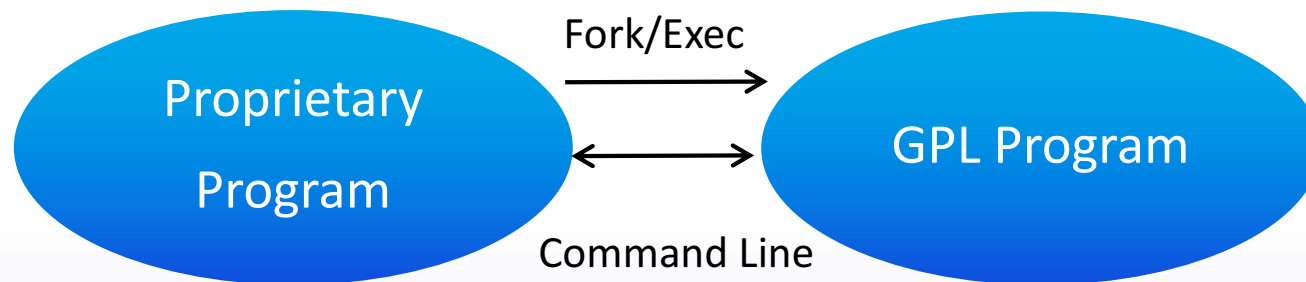
- Provided “as-is”
  - Use and distribution is permitted without a need to pay fees
  - Source code is available and may be modified
  - Modified versions may (or must!) be distributed with permission for others to do all of the above
- 



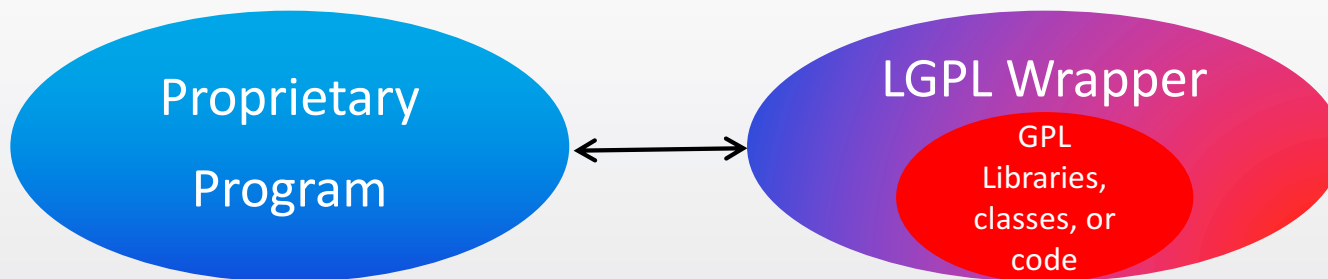
# Derivative Works with the GPL



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

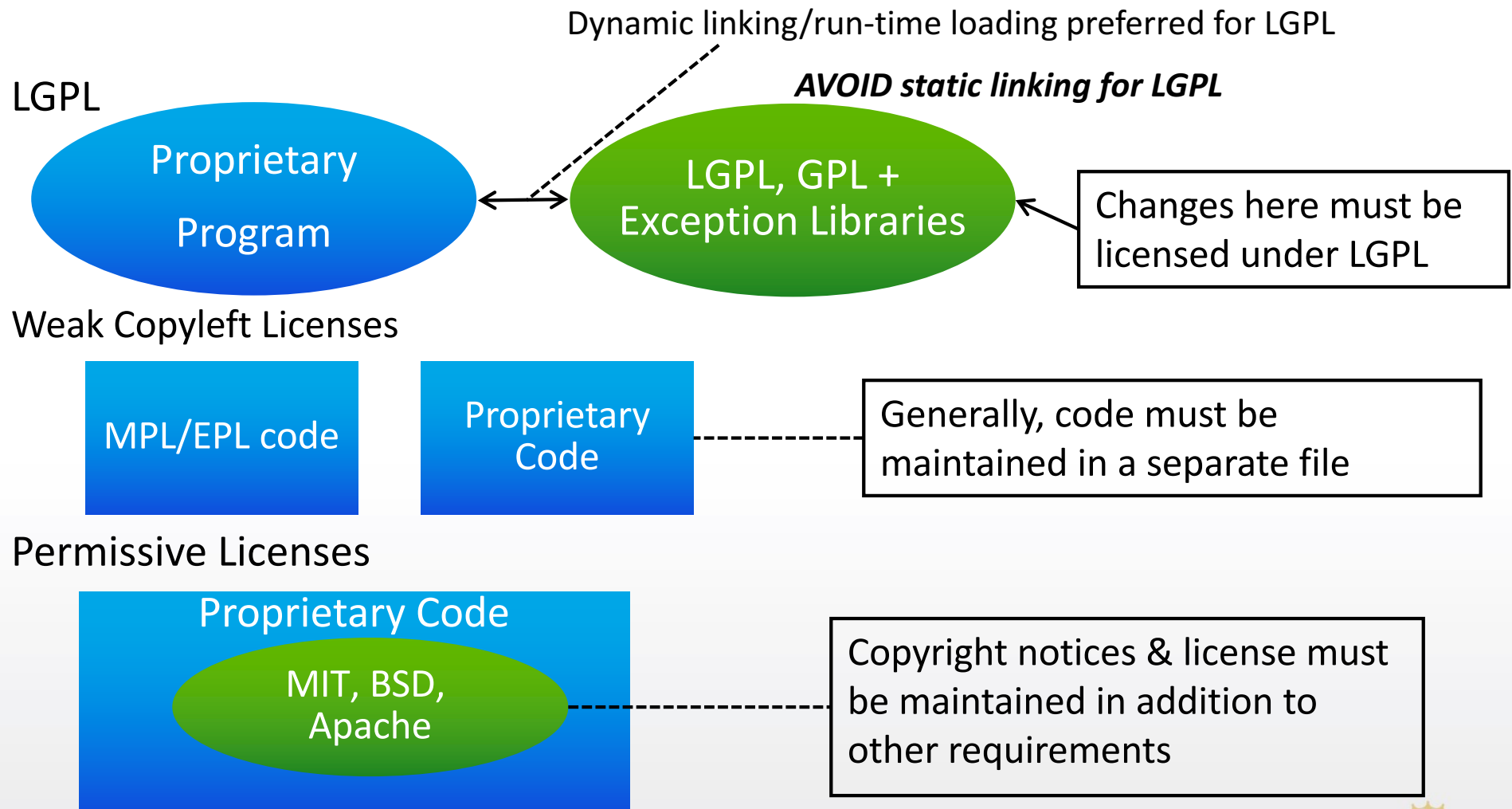


Generally OK. But, there are exceptions! (APIs are 'grey area')



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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- e. None of the above

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)

# Determining Open Source Community Health



# Open Source Review Policy and Processes

# Sample Open Source Program Office

- Host the Open Source review process
  - 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, Happy to Talk More

This is Fascinating 😊