## **Open Source Software, Patents, and the Question of Compatibility**



April 5, 2023

## **Meet The Speakers**



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## Agenda

#### Overview

- What is Open Source Software
- Open Source Developers and Patents
- Benefits and Risks of Open Source
- Minimizing Litigation Risk Through Collaborative Patent Organizations
- Open Source Business Models
- Common Open Source Licenses
- Open Source Patent Provisions

#### Housekeeping

• CLE

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- Email CLE forms to MCLETeam@fr.com
- Questions
- Materials
  - http://www.fr.com/insights/webinars



Skinny Label Carve-Outs: Essential Considerations Wednesday, April 19, 2023 | 1:30-2:30 p.m. ET

Under the Hatch-Waxman Act, section viii carve-outs, also known as "skinny labels," have provided a pathway for generic drug manufacturers to seek approval to market their drugs by carving out the branded drug's patented methods of use.

On Wednesday, April 19th, join Fish Principals Juanita Brooks and Betsy Flanagan for an introduction to skinny label carve-outs





Juanita Brooks Principal



Betsy Flanagan Principal

#### WHAT YOU'LL LEARN

Juanita and Betsy will discuss the following topics and more:

- What are the policy reasons for allowing carve-outs?
- · What is the interplay between carve-outs and the law of inducement?
- What does a true carve-out look like?
- What does an insufficient carve-out look like?
- What remedies does an innovator have when there's an insufficient carve-out?
- Are the generics right? Will the GSK v. Teva opinion bring an end to carve-outs?

What is open source/free software?

#### What Is Free/Open Source Software?

- "Free" has two meanings
  - "Free" no cost
  - "Free" do what you want
- Open source code is usually "free" in both senses: freely available and may be redistributed and modified
  - But there may be <u>conditions</u>, such as requiring attribution or making modifications available for free as well
- Typically permitted: commercial use, charging (for services, warranty, or support)
- Often (but not always) no limitations on internal "use"
- Open source is ubiquitous

## **10 Open Source Initiative Principles**

- 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
- 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

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# Open Source Developers and Patents

## **Engaging OS Developers**

- Many companies assume OS developers are willing participate in patents
- That assumption is *sometimes* true
- Some OS developers are anti-patent
  - The "Software Patent Debate" even has its own Wikipedia page.
- How can we engage all/more OS developers?



## **Open Source Developer Motivations**

#### What motivates (some/many/typical) open source developers?

- Their project (even though they were hired by a particular company)
- Their component in the project
- Open source
- Other open source developers

#### Many are passionate

- Will leave a company that violates their principles
- And will get a new job before their desks get cold (at least that used to be true)

#### Patents: generally considered bad

- Common belief that patents are antithetical to open
- Software Patents Considered Harmful
- WHY SOFTWARE PATENTS ARE BAD, PERIOD.
- Goal: transition from "bad" to ... anything other than bad

## What typically does not work (from someone who has tried)

- "You can exclude others from competing"
- "You can get a competitive advantage"
- "You can drive up competitors' costs"
- "It helps your company"
- "Your company can monetize the portfolio"
- "There are awards"

#### These are all true, but typically miss the mark, often badly. None address core motivations.



## What to try: PATENTS CAN PROTECT OPEN DEVELOPMENT

#### • Yes, PATENTS CAN PROTECT OPEN DEVELOPMENT

- Patents can help dissuade operating companies from asserting against open source
- Most open source has at least one proprietary analog
  - And the seller of the proprietary code might be unhappy about the competition

## Patent can help keep open open



## A client's policies can help

- Policies that can help
  - <u>Twitter's innovators agreement</u>
  - Red Hat patent promise
  - Tesla: our patents belong to you
- Add societal good
  - <u>Open Covid Pledge</u>, founded by Facebook, Amazon, Intel, IBM, Microsoft, HPE, Sandia Labs, Unified Patents, apheris AI, Fabricatorz Foundation; numerous additional pledgers
- Know you client's policies ahead of time



## **Additional Benefits**

#### • Opportunity to collaborate

- What do you get when a material scientist, a physicist and a photochemist have free time and leftover Thanksgiving turkey?
- Creative outlet for innovators and can be fun
- Opportunity to address Diversity & Inclusion
  - Statistically, most patents come from white/Asian males
  - That experience creates eminence, enhances career opportunities, which can exacerbate D&I imbalances
  - And diversity of thought and experience often leads to stronger innovations



# Benefits and Risks of Open Source

## **Open Source Fundamentals:** *Benefits to Customers*

• Free code

#### Community Contributions

- Bug fixes
- Security fixes

#### • Public Relations/"Mindshare"

- Customers
- Developers
  - Employees
  - Third parties
- No Vendor Lock-in
- Standards Support / Adoption

## **Open Source Fundamentals: Risks (i)**

#### Potential loss of exclusive rights

- Loss may be intentional willing to give up rights to get benefits
- Loss may be unintentional due to lack of knowledge/control, you may lose exclusive rights without knowing it
- · Loss of rights may occur under multiple areas of law
  - Copyright
  - Patent
  - Trademark
- Breach of contract/copyright claim
  - Exposure to damages or injunction
  - Bad public relations



## **Open Source Fundamentals: Risks (ii)**

- Lack of indemnity/warranty
  - Open source licenses always disclaim warranty
- Security (especially with monoculture)
  - Because certain open source tools are extremely common, they can be an attractive target for hackers
- Reliability (varies widely)
  - Not all open source is equally reliable
  - Reliability can also change over time based on project staffing
- Uncertainty / code provenance
  - You don't always know where the code is coming from



## **Open Source Fundamentals: Risks (iii)**

#### • Exposure to Patent Infringement Claims

- It is easier for patent owners to discover how your product works internally if the source code is publicly available
- Broadly used open source components also allow patent owners to prepare "cookie cutter" complaints
- Can be managed (next section)

#### "Abandonware"

 Some open source projects cease to be maintained, leaving users without updates, bug fixes, or security patches

#### Settlement Complications

- Some open source licenses limit how you can settle litigation involving the software



## **Recent OSS-related Litigation**

#### • Rothschild Patent Imaging (RPI) v. GNOME

- NPE targeted Shotwell image organizer
- OSS community raised over \$150,000 to defend
- Patent ultimately canceled in reexamination

#### • Software Freedom Conservancy (SFC) v. Vizio

- SFC sued Vizio to require the disclosure of Vizio TV software
- Raises issue of whether a "third-party beneficiary" to an OSS license has standing to sue
- Currently pending in California Superior Court

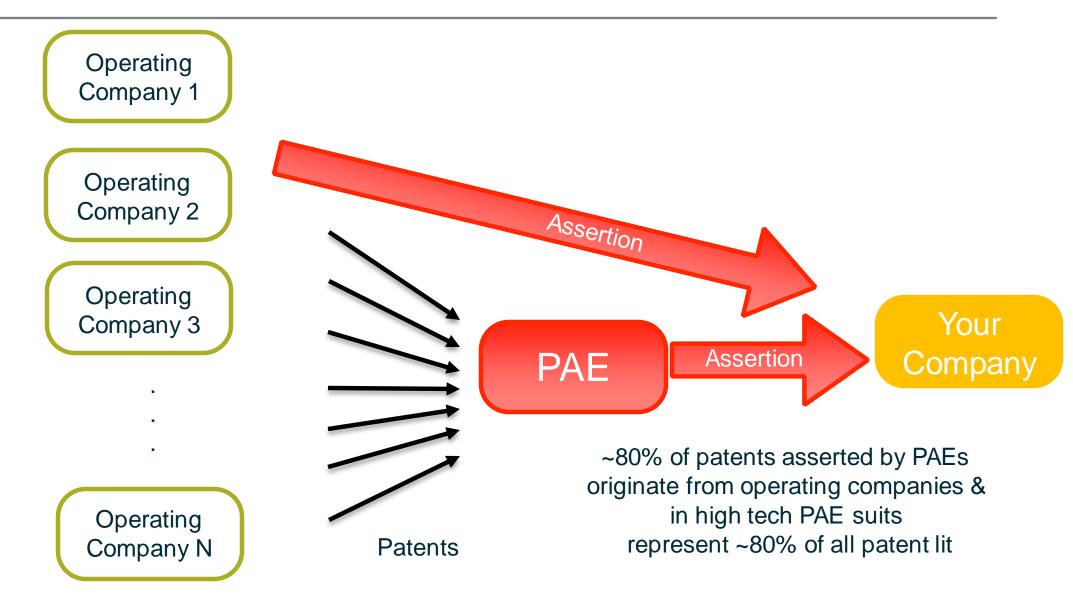
#### Copilot Class Action Lawsuit

- Open source copyright owners sued Microsoft, Github, and AI in NDCAL
- Copilot code-generator trained on code subject to OSS licenses
- Will likely raise many important issues of first impression



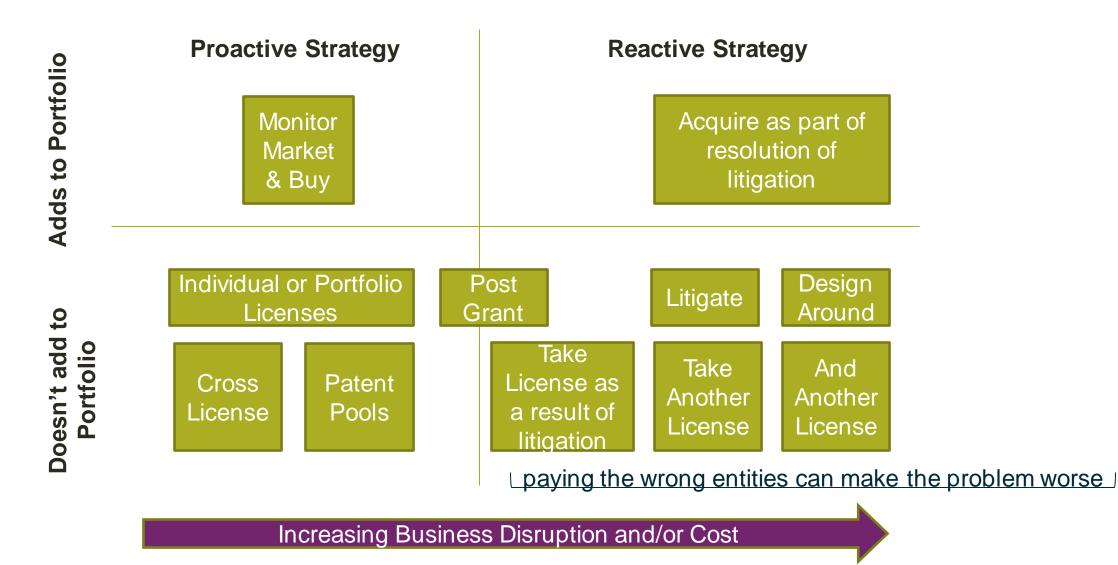
Minimizing Litigation Risk Through Collaborative Patent Organizations

## **The Problem**

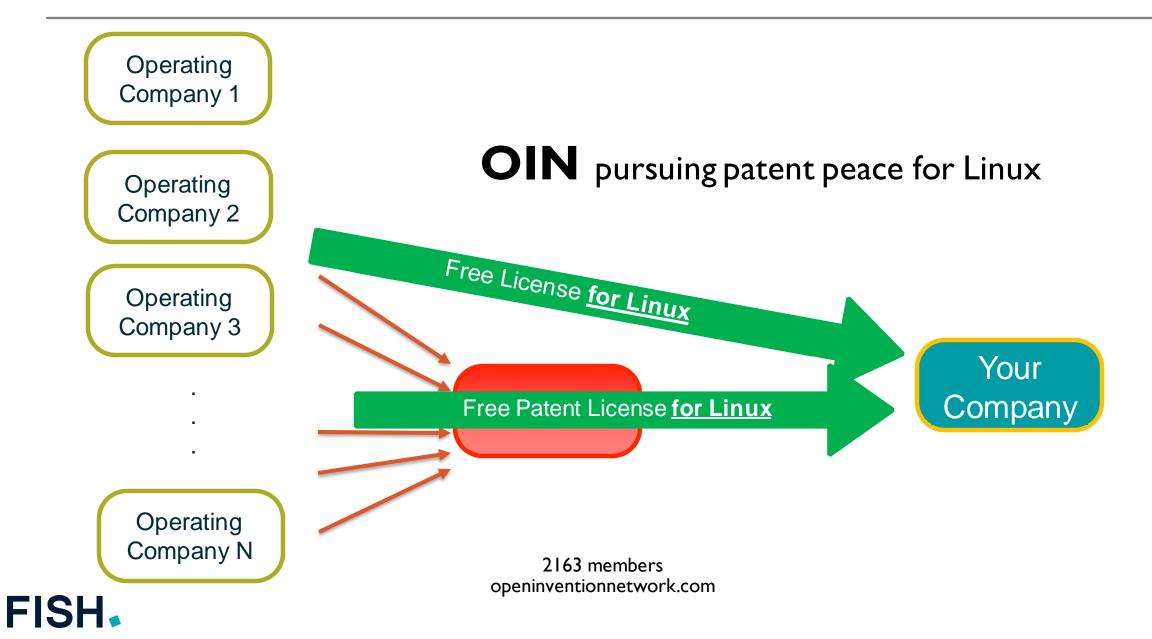


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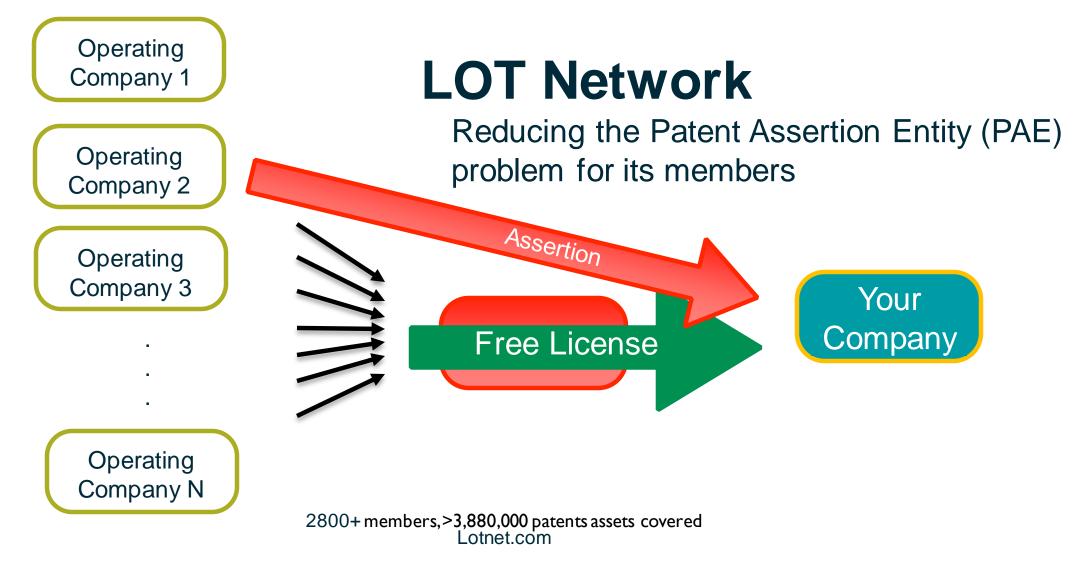
## Historically - A Combination of Mostly Individual Approaches



## **Potential Solution: OIN**

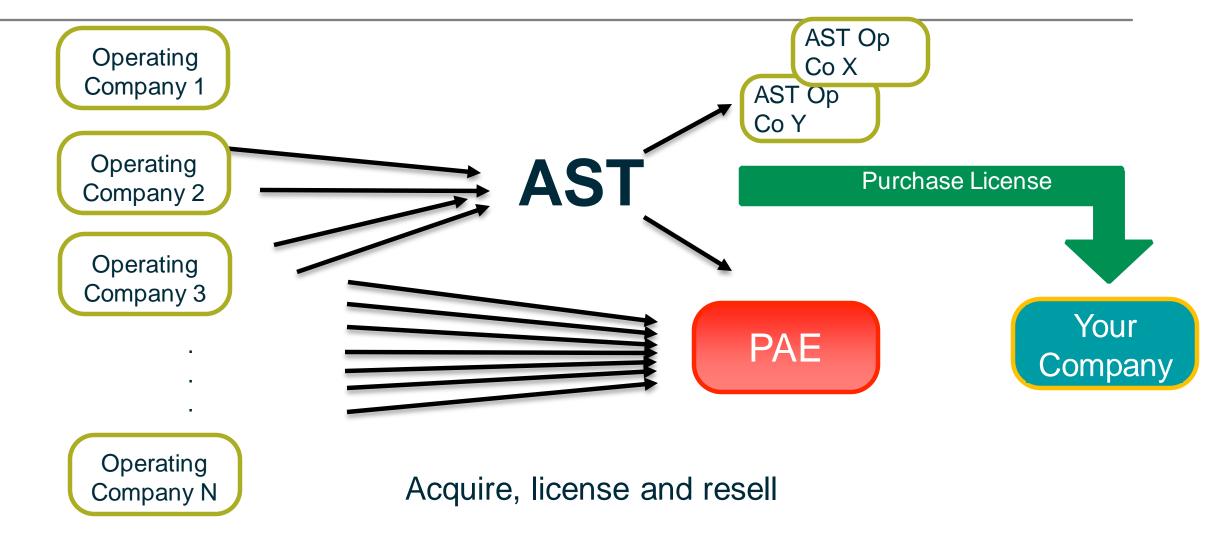


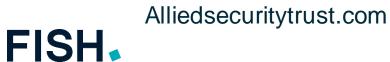
## **Potential Solution: LOT**



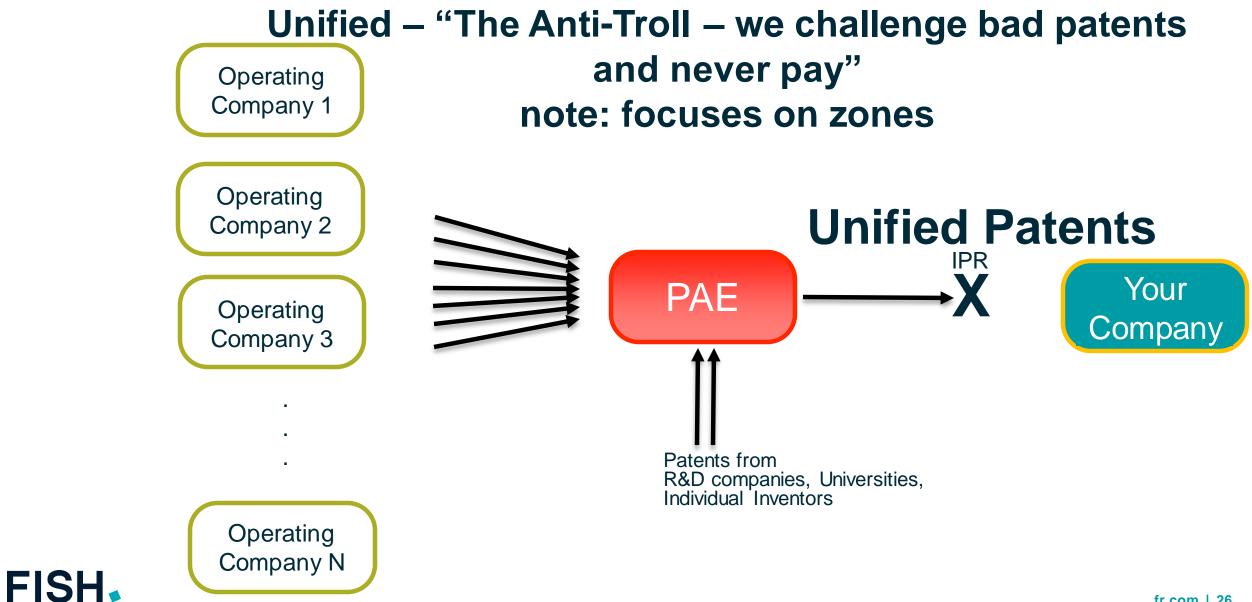
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## **Potential Solution: AST**



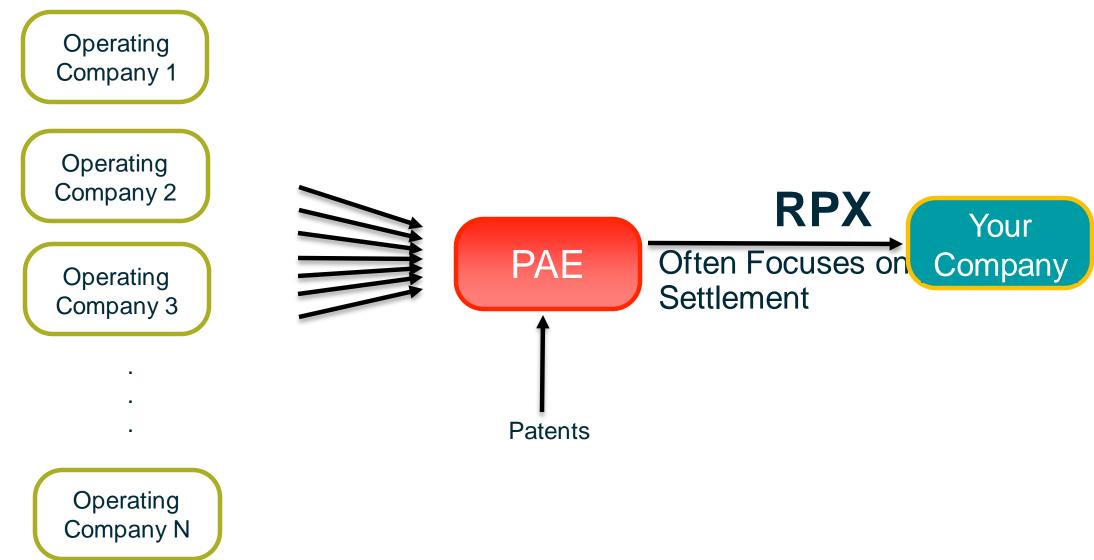


## **Potential Solution: Unified**



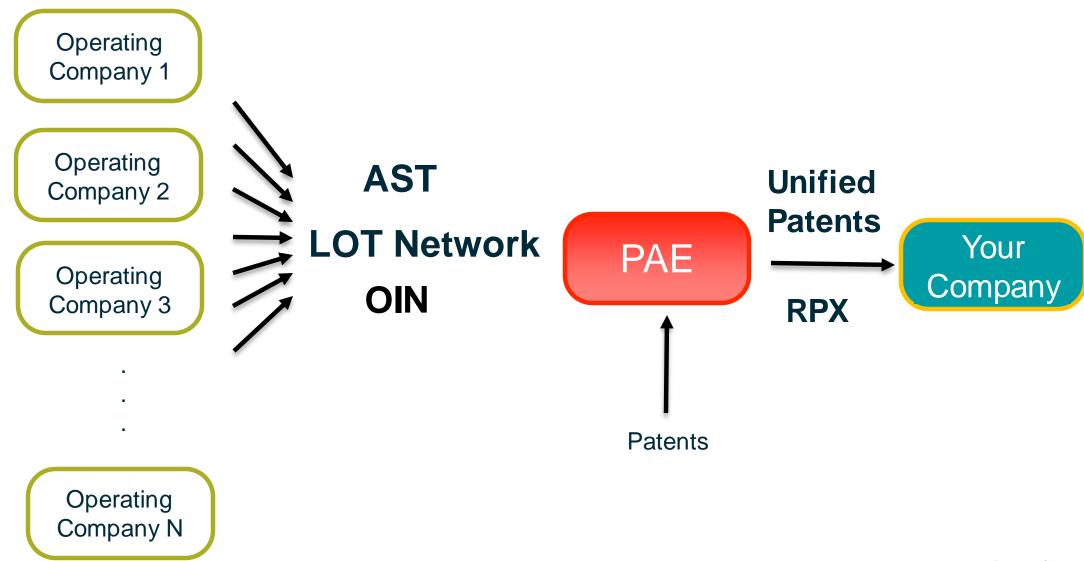
## **Potential Solution: RPX**

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## **Potential Solutions: all of the above**

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## Financial Costs for OIN, LOT and AST

OIN	LOT Participant's Annual Revenue (USD)	LOT Network Annual Membership Fee	AST Participant's Annual Revenue (USD)	AST Annual Membership Fee
Free	<\$25M	Free	<\$1B	\$100K
	\$25M to \$50M	\$5,000	\$1B-\$4B	\$150K
	\$50M to \$100M	\$10,000	>\$4B+	\$200K
	\$100M to \$1B	\$15,000		
	>\$1B	\$20,000		



## **Resources**

- Lotnet.com
- Alliedsecuritytrust.com
- Openinventionnetwork.com
- Unifiedpatents.com



# **Open Source Business Models**

## **Business Models**

- Just because source code is available for free doesn't mean you can't make money
- Many billion-dollar (plus) companies are based on open source
  - Google
  - Apple
  - Red Hat (now part of IBM)
  - Hortonworks (merged with Cloudera)
- Nearly every software startup has some involvement with open source, as do many hardware startups



## **Business Models**

- Software as a Service
- Hosted Software
- Hardware + Open Source Software
- Dual Licensing
- Open Core
- Proprietary Core / Open Extensions / Open Edge
- Freemium
- Loss Leader
- Goodwill
- Services / Support / Warranty / Indemnity
- Consulting / Customization



# Common Open Source Licenses

## **Common Licenses – Permissive**

- Apache
- MIT
- BSD
- "Unlicense"
- One-off/eccentric licenses
  - WTFPL
  - JSON
  - VIM
- Creative Commons Licenses



## Common Licenses – Copyleft / "Viral"

- GNU General Public License (GPL)
- Affero AGPL
- "Lesser" LGPL

### "Weak" Copyleft

- Mozilla Public License
- Common Development and Distribution License
- Eclipse Public License



#### Newer generation of cloud-oriented licenses

- Server Side Public License
  - Expands AGPL-like terms to code that functions as part of a "service" (e.g. MongoDB)
- Elastic License 2.0
  - Bars providing software as a hosted or managed service (e.g. Elasticsearch)
- Commons clause
  - Prohibits "selling" the software
- Typically used in a dual-licensing model
- Often **not** considered to fall within accepted definitions of "open source"



## **Open Source Patent Provisions**

#### Patent clauses in open-source licenses generally fall into one of three categories:

- Patent Licenses (or covenants not to sue);
  - Who grants the license?
    - generally, only contributors (including in some cases modifying distributors) however read the provisions of the OS license, e.g., the copyleft license, at issue
  - Which patents does the license include?
    - a) the contribution alone or b) the combination of the Contribution with the Work (see e.g., Apache 2.0)
  - Which activities does the license allow?
- Defensive Termination
  - e.g., Apache 2.0
- Other Patent Provisions
  - e.g., GPL v3 provision regarding entering into restrictive patent licenses



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## **Thank You!**

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