GOVERNMENT POLICIES ON OPEN SOURCE

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GOVT STRATEGIES

• Use of purchasing power
  – Whether to favor, disfavor, or make decisions about whether good or bad to use F/OSS
• Use of “bully pulpit”
  – Making recommendations to others about F/OSS
• Funding software R&D
  – Whether to condition gov’t funding on use of open source licenses
• Funding studies about F/OSS or software industry, with or without policy recommendations
  – Is there a market failure that needs to be cured?
OTHER REGULATORY MOVES

• Antitrust policy
• Contract and licensing rules
• Intellectual property rules
• Tax rules
• Standard setting
• E-voting
• Industrial policy
• Exercise of police power (e.g., CALEA)
• Export control/national security

COPYRIGHTS

• Copyrighting computer programs
  – Should source code disclosure be required?
  – Is mass-market distribution of programs a “publication” of the code?
  – Should APIs be disclosed? protectable by ©?
  – Should interoperability be privileged or not?
  – Should reverse eng’g to get access to interfaces, etc. be lawful?
  – Should policies of IP override K provisions purporting to take away IP user rights (e.g., first sale, RE)?
  – Should there be a default rule in favor of user modifications?
  – What “derivative work” means in © and GPL?
  – XML schemas, data exchange formats ©?
INTEROPERABILITY

• Difficult to define term precisely, but is a kind of interconnection between two or more entities that affects whether they can exchange information and interact effectively
• Interface specifications are a key enabler of interoperability
• Sun definition of interface: natural boundary between entities, plus a set of rules, such as specifications for successfully interacting across that boundary
  – e.g., software-to-hardware, software-to-software

ROLE OF IPR FOR INTERFACES

• Many interfaces (e.g., APIs) are published as open standards, and others can implement interface without IPR barriers
  – Public domain or available RF (royalty free)
• Many software interfaces are maintained as trade secrets, but may be reverse engineered
• Computer Associates v. Altai (2d Cir. 1992): appellate court ruled that interface specifications necessary to interoperability are not protectable by copyright law
• However, interfaces, if novel & nonobvious, may qualify for patent protection
WHY WORRY ABOUT INTERFACE PATENTS?

- Strong incentive for firms to patent interfaces because gives exclusive right to control product & complements
  - Strong presumption of validity
  - Very costly to litigate
  - Unlikely that outsiders can work around the patent (as can with other weak patents)
  - Can't make competing or complementary product without patentee’s permission (which he/she may be free to withhold)
  - If defendant’s product successfully interoperates, easy to know of and prove infringement of interface patent
  - Interface element patented may be arbitrary, not meaningful innovative advance

INTRINSIC VALUE

- Market power of interface patents may be out of proportion to the intrinsic value of the innovation
  - Tiny, arbitrary, trivial component of an interface may, if patented, have a market value that derives mainly from being a chokepoint once the interface has been widely adopted and irreversible investments have been made to implement the interface standard
  - Disproportionate rent can be captured from this patent as compared with the degree to which it is intrinsically valuable because it improves functionality
  - Example: Rambus charges > 4X more if standard
- Yet some interface patents may be necessary to spur innovation (e.g., DRM patents)
THE WEAK PATENT PROBLEM

• Steep increase in patent applications in recent years; often to build portfolios
• Burden on examiner to find prior art that invalidates the patent; can't use common sense
• Incentives within PTO to increase output
• Much of software prior art is not “published” in patent law sense, or is unavailable to examiner
• Lots of weak patents are issuing, especially in software
• Ineffective regime to challenge patent validity after it has been granted
  – Some proposed reforms, but slow movement in Congress

SUN’S POLICY PREFERENCES

• No patents on interfaces
  – Cohen article argued this, but CAFC won't accept
  – argument that TRIPS would preclude
• Higher standard of nonobviousness for interface patents (e.g., put burden of proof on applicant to show nonobvious advance)
  – no basis in current law & policy for this distinction
• No injunctive relief if a patented interface becomes a standard
  – CAFC unlikely to find persuasive
OTHER POSSIBLE AVENUES

- Regulating IPRs in SSOs
- Antitrust/competition law policy oversight
  - EC forced IBM to disclosure interfaces
- EU proposed interoperability exception
- Reinvigorating nonobviousness standard
- Improved post-grant review process
- Liability rule, rather than property rule if interface patent found valid & infringed
  - Damages instead of injunction
- Fair use, reverse eng’g limitation