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**Black Hat Briefings 2007**  
**Intellectual Property Law and Vulnerability**  
**Reporting**



# Cisco and ISS v. Lynn (2005)

- <http://www.granick.com/blog/>
- <http://www.wired.com/science/discoveries/news/2005/08/68435>
- Complaint included:
  - Copyright Infringement
  - Misappropriation of Trade Secrets
  - Breach of Contract

# HID v. IOActive (2007)

- <http://www.granick.com/blog/?p=552>
- <http://www.wired.com/politics/law/commentary/circuitcourt/2007/02/72819>
- Letter suggested patent misuse/infringement

# Topics for the Talk

- Copyright Infringement, Reverse Engineering and Fair Use
- Trade Secrets, EULAs and TOS
- Patent Infringement
- Free Speech and Vulnerability Reporting

# CR Infringement & Lynn

ISS Slides

Cisco Code

# Copyright Infringement

- protects software
- owner has exclusive rights in the work, even when copies of the item are given away or sold
- the right to reproduce the work; the right to prepare derivative works; the right to distribute copies of the work; the right to perform the work publicly; and the right to display the work publicly.

# Program Mods

- Owner of a copy of a computer program is allowed to reproduce or adapt the program if reproduction or adaptation is necessary for the program to be used in conjunction with a machine. (17 U.S.C. 117)

# Reverse Engineering

- Protected by Fair Use
  - The purpose and character of the use, including whether such use is of commercial nature or is for nonprofit educational purposes;
  - The nature of the copyrighted work;
  - Amount and substantiality of the portion used in relation to the copyrighted work as a whole; and,
  - The effect of the use upon the potential market for or value of the copyrighted work.



# Reverse Engineering

- If reverse engineering is required to gain access to function and ideas, any intermediate copies made as part of reverse engineering are fair use.
- RE will not protect you from a copyright infringement claim if you are not legitimately in possession of the software, or if you use copyrighted code in your final product.

# Lynn: classic fair use

- Make sure program is legitimately obtained, make intermediary copies as needed to understand the program, but do not infringe the program in your final product.
- Copies are necessary for figuring out how a program works and for accessing ideas, facts, and functional concepts contained in the software.
- Do not use copyrighted code in the final product.
- Do not steal the copy of the software that you are reverse engineering

# Vulnerability discovery and reverse engineering

- Reverse engineering is generally legal
- Limits are copyright law, contract law, DMCA
- RE is usually fair use under copyright law
- RE can be limited by licenses and EULAs
- RE can be limited by non-disclosure agreements and trade secret law

# DMCA anti-circumvention provisions

- Prohibits cracking TPM (DRM) that controls access to a copyrighted work, or trafficking in a tool that cracks
- Broad prohibition
- Successfully used to threaten researchers in the past
- Never upheld by a court
- Some exceptions in the statute for reverse engineering, encryption and security research
- Exceptions are narrow

# Misappropriation of Trade Secrets

- A trade secret is information that:
  - (1) Derives independent economic value, actual or potential, from not being generally known to the public or to other persons who can obtain economic value from its disclosure or use; and
  - (2) Is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.

# Misappropriation

- Acquisition by improper means, or disclosure without consent by a person who used improper means to acquire the knowledge.
- Improper means includes theft, bribery, misrepresentation, breach or inducement of a breach of a duty to maintain secrecy, or espionage.
- Reverse engineering or independent derivation alone shall not be considered improper means.

# Can a EULA or NDA...

- Prevent the researcher from raising a fair use defense to a claim of copyright infringement?
- Prevent the researcher from claiming fair and legitimate discovery defense in response to a trade secret misappropriation claim?
- Subject the researcher to a breach of contract claim if he reverse engineers in contravention to the terms of that document?

# EULA Enforceability

- Bowers v. Baystate
- Blizzard v. BnetD
- Combs v. PayPal



# Patent Infringement

- one must make, use, sell or offer for sale an invention described by the patent's claims without the patent owner's authorization.
- If a reader operates identically to the card readers described in HID's patents, then the company's legal threat actually makes some theoretical sense.

# Patent Infringement Damages

- Only actual, not statutory damages

# IntellectualWeapons

- Website no longer exists
- Raises interesting questions about interference between computer security and IP rights.

# Vulnerability reporting & Speech

- Free speech protections and code
  - First Amendment
  - Functional Code/Actions Vs. Speech
- The law of criminal speech and crime-facilitating speech
  - US v. McDanel case
  - Conspiracy law
  - Aiding and abetting

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