

Offset	Topic
00:17	<ul style="list-style-type: none"> <li>• <b>Intro</b></li> </ul>
	<ul style="list-style-type: none"> <li>• Quick game review <ul style="list-style-type: none"> <li>• Hey! That's My Penguin!</li> <li>• <a href="http://www.boardgamegeek.com/game/8203">http://www.boardgamegeek.com/game/8203</a></li> <li>• Picked it up at D*C to bring back for the kids</li> <li>• Easy enough for the five year old</li> <li>• Very simple mechanics</li> <li>• Decent strategy for younger players</li> <li>• Like Sputnik, enjoyable for the whole family</li> </ul> </li> </ul>
03:35	<ul style="list-style-type: none"> <li>• <b>Security Alerts</b></li> </ul>
03:54	<ul style="list-style-type: none"> <li>• Quantum computing and today's cryptography <ul style="list-style-type: none"> <li>• Ars deflates claims of quantum computing advancements <ul style="list-style-type: none"> <li>• <a href="http://arstechnica.com/news.ars/post/20070914-quantum-computing-burns-through-another-two-graduate-students.html">http://arstechnica.com/news.ars/post/20070914-quantum-computing-burns-through-another-two-graduate-students.html</a></li> <li>• Peter Shor proposed an algorithm for factoring primes</li> <li>• Could be run on a quantum computer much faster than traditional</li> <li>• Fast enough to make current cryptography very weak <ul style="list-style-type: none"> <li>• Adding digits doubles time to factor through existing means</li> <li>• Quantum computer would solve in more constant time, despite size of factors</li> </ul> </li> <li>• Researcher cited apparently can only factor a small integer, 15</li> <li>• Way over optimistic statements on scaling to larger integers</li> <li>• Are some true advances in the research <ul style="list-style-type: none"> <li>• First demonstration of Shor on optical computers</li> <li>• Qubits probably entangled, no previous work conclusively did so</li> <li>• Shor relies on entanglement, so this is the first real compelling proof</li> <li>• Shor is also a demonstrate of BPP complex problems</li> <li>• First positive proof of what real quantum computers could do</li> </ul> </li> <li>• Quantum computing has been working on expanding to a reasonable number of qubits</li> <li>• Progress has been slow, so far</li> <li>• True breakthrough in register size would create a bigger splash</li> </ul> </li> <li>• Explanation of how quantum computing, Shor's algorithm work <ul style="list-style-type: none"> <li>• <a href="http://www.hackszine.com/blog/archive/2007/09/how_a_quantum_computer_can_fac.html?CMP=OTC-7G2N43923558">http://www.hackszine.com/blog/archive/2007/09/how_a_quantum_computer_can_fac.html?CMP=OTC-7G2N43923558</a></li> <li>• Just a quick explanation to help understand the potential</li> </ul> </li> </ul> </li> </ul>
09:23	<ul style="list-style-type: none"> <li>• Vulnerability in system call wrappers, often used for security</li> </ul>

## Offset

## Topic

- [http://www.theregister.co.uk/2007/09/14/system\\_call\\_spoits/](http://www.theregister.co.uk/2007/09/14/system_call_spoits/)
- Relies on common security technique, system call wrapping
- Wrapper copies data, a race condition allows attacker to overwrite
- Some aspects of vulnerabilities already known or suspect
- First real demonstration
- All kinds of systems are vulnerable
- Multiple core is marginally easier
- No specific to multiple core as some are reporting
- This is link dangling pointers, a common programming technique that now affords opportunity for attack
- Article has an in-depth Q&A with the researcher

11:34

## • News

11:47

- Stage magic also thrives without heavy use of IP law
  - <http://www.freedom-to-tinker.com/?p=1196>
  - Draft paper by Jacob Loshin
  - When considering alternatives to current copyright, what form would they take?
  - Paper on magic considers a space where IP law has little to no effect
  - Like fashion, cuisine, unique view into "natural" state if ideas, innovation
    - Unlike fashion, inventions have value
    - Paper examines how value is retained without law
  - Much modern practice originates from the turn of the 20th century
  - Deep history to consider
  - Norm of respect for sharing
  - Implication that personal style, performance generates value as much as mechanics
  - Also identifies unique damages of theft, exposure
  - A good illustration of different types of IP law, especially limits, with magic as practical examples
  - A working commons, uses norms, architecture to guard resources
  - Enforcement is done by professional organizations, not corporations with their own interests
  - Much of this is owed to the unique nature of magic as IP, rivalrous
  - Felten observes self organized group may not be best way to decided benefit to society
  - Also questions the damage of exposure, knowing how an iPod works doesn't decrease its value
  - Feel secrecy doesn't benefit innovators more broadly
  - Would innovation go faster if more open?
  - I wonder more if norms based regime could be translated
  - Can we rub out the unique character of magic, anything of value left to IP generally?

## Offset

18:36

## Topic

- P2P phones tested in Sweden
  - <http://rss.slashdot.org/~r/slashdot/eqWf/~3/155121034/article.pl>
  - Working example of mesh network
  - No hub, if one node has access, gets shared throughout
  - Different than other mesh applications, sharing access
  - Telephony gets large part of its utility in network
  - Designed for under served areas
  - Launched in Tanzania and Ecuador
  - How well will this work when a node is on the "opposite" side of a mesh to a traditional telephony gateway?
  - Currently proprietary, sounds like they want it to be a standard feature on all mobile phones
  - How do they do billing? Telcos rely on centralization
  - Article glosses over problems, like radio frequency availability
  - Still, hope this succeeds as meshes have much promise
  - OLPC, for example, is planned to use a mesh

22:35

- Using puzzles to illustrate CS concepts
  - <http://www.codinghorror.com/blog/archives/000951.html>
  - Agree with his description of the dichotomy between puzzles, practical solutions
  - Also agree that I'd rather see a practical test in a recruiting interview
  - Provides some good examples
    - Dining philosophers
    - Traveling salesmen
    - Eight queens
    - Two generals
    - Towers of Hanoi
  - Mentions the concepts these help illustrate
  - Doesn't tie them to real world problems, though
  - Concepts are less useful without application
  - The puzzle only illuminates the concept
  - Dining philosophers and thread synchronization
  - Towers of Hanoi and parsing XML of arbitrary depth
  - Given a clear understanding of the concept and one application, a programmer can find other applications
  - Lacking even that one practical application can be a static friction
  - That first gap is the widest, even if the connection is obvious in retrospect

25:50

- Google to propose global privacy standard
  - [http://www.news.com/Google+proposes+global+privacy+standard/2100-1030\\_3-6207927.html?part=rss&tag=2547-1\\_3-0-20&subj=news](http://www.news.com/Google+proposes+global+privacy+standard/2100-1030_3-6207927.html?part=rss&tag=2547-1_3-0-20&subj=news)
  - Other privacy actions have been weak

## Offset

## Topic

- Shortening retention by token amounts
- Actually follows existing work, framework from APEC, Asia-Pacific Economic Cooperation
- Proposing government, industry cooperation in implementing
- Article lists nine principles
- Overall focus seems to be in material harm
- Question is, though, whether privacy is an issue of dignity instead of or as much as harm
- Critics describe it as weaker than current standards
- Apparently compiled before current data on costs of identity theft
- Unfortunately, any discussion from industry is going to always be biased to a market interpretation
- We need to convince more governments to represent the dignity interpretation
- Even better solutions available, like P3P, Higgins, OpenID, which give discretion, control, to consumer

29:07

- **tail -f**

29:27

- Criticism of paper trails for e-voting
  - <http://rss.slashdot.org/~r/slashdot/eqWf/~3/156345207/article.pl>
  - Information Technology and Innovation Foundation says paper trails increase cost
    - ITIF is a non-profit think tank
    - Don't know enough to speak to any bias, for or against current vendors
  - Also claim can decrease accuracy of counts
  - May be a reasonable argument, depending on forthcoming report
  - Claim they want to increase verifiability without specifying paper, per se
  - Wouldn't exclude paper
  - Want legislation to be more open to technologies that meet a more general requirement

31:18

- Study of economic benefits of fair use
  - <http://www.eff.org/deeplinks/archives/005436.php>
  - Released by CCIA, same as made the FTC copyright warning complaint
  - Used methodologies created by WIPO
  - In the US, industries that depend in limits in copyright contribute one-sixth of GDP
  - That's 2.2 trillion USD, 17 million jobs
  - Critics cite bias in the industries sampled
  - Bias couldn't be any worse than that in typical piracy report
  - Again, CCIA is trying to make the point that economy works in absence of perfect control of IP

33:13

- **Outro**

<u>Offset</u>	<u>Topic</u>
	<ul style="list-style-type: none"><li>• Contact me<ul style="list-style-type: none"><li>• Email to <a href="mailto:feedback@thecommandline.net">feedback@thecommandline.net</a></li><li>• Web site at <a href="http://thecommandline.net/">http://thecommandline.net/</a></li><li>• IM to <a href="skype:command.line@skype">command.line@skype</a></li><li>• Listener comment line is 360-252-7284</li><li>• del.icio.us tag is "for:cmdln"</li><li>• <a href="http://twitter.com/cmdln">http://twitter.com/cmdln</a></li></ul></li><li>• I'd like to thank <a href="http://libsyn.com">libsyn.com</a> for AAC hosting and Wouter de Bie for MP3 hosting</li><li>• These notes and the show audio and music are covered by a Creative Commons license<ul style="list-style-type: none"><li>• <a href="http://creativecommons.org/licenses/by-nc-sa/3.0/us/">http://creativecommons.org/licenses/by-nc-sa/3.0/us/</a></li><li>• Attribution, non-commercial, share alike</li></ul></li></ul>