

## The TCPA and Palladium

CIS/CSE 583



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## What is the TCPA?

- Trusted Computing Platform Alliance
- Started in 1999 by:
  - Intel
  - Microsoft
  - HP
  - Compaq
  - IBM
- Now includes more than 150 companies



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## Goal of the TCPA

- "...a new computing platform for the next century that will provide for improved trust in the PC platform."  
— TCPA Web Site



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## TCPA Business Objectives

- Prevent use of unlicensed software; lock users into recurring license fees.
- Digital Rights Management.
  - Prevent CD ripping and DivX creation.
  - Plug “analog hole.”
  - Control information flow
- Make PC the core of the home entertainment center, growing overall market.
- Meet operational needs of law enforcement and intelligence services (FBI, Homeland, NSA, non-U.S. law enforcement).



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## TCPA Technical Objectives

- Prevent the running of untrusted code
  - Implies no root access
- Three defined levels of access
  - Privileged (TCPA member approved code)
  - Underprivileged (platform owner)
  - Unprivileged (non-TCPA applications)
  - I can't find an original source for this; taken from Lucky Green's DefCon talk



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## Technical Underpinnings: The Fritz Chip

- Real name: Trusted Platform Module
- Nicknamed for Fritz Hollings, senator from South Carolina
- Will be included on all motherboards
- Surface mounted
- Tamper resistant
- Basically a crypto co-processor with some data storage



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## Resources

- TCPA web page:  
<http://www.trustedcomputing.org/tcpaasp4/index.asp>
- Ross Anderson's TCPA FAQ:  
<http://www.cl.cam.ac.uk/users/rja14/tcpa-faq.html>
- Bruce Schneier's Crypto-Gram:  
<http://www.counterpane.com/crypto-gram.html> (see August 15, 2002 in particular)
- Cypherpunks, and Lucky Green's talk:  
<http://www.cypherpunks.to/>



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