



# TCG Introduction and Agenda

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# Today's Agenda

## TCG Activities this week:

- Half-Day Monday Seminar Workshop
  - When: Monday, March 1, 2010 – 11am – 3pm
    - 11am – Welcome/Introduction to Session (Brian Berger, TCG Director)
      - Lunch Served
    - 11:30am – Steve Hanna, Juniper Networks
      - Title: *Coordinated Security: A New Paradigm*
    - 12pm – Stu Bailey, Infoblox
      - Title: *A New MAP of the World*
    - 12:30pm – Aidan Herbert, Wave Systems Corp.
      - Title: *Commercially Proven Trusted Computing Solutions*
    - 1:00pm – Matt Webster, Lumeta
      - Title: *I Trusted You Once, But Can I Still? Post-Admission TNC*
    - 1:30pm – Bob Beliles, Hirsch Electronics
      - Title: *When Physical and Logical Security Worlds Collide*
    - 2:00pm – Lisa Lorenzin, Juniper
      - Title: *Making TNC Work for You*
    - 3pm – Closing Remarks / Prize Drawing
- Evening Cocktail Reception – Invitation Required!!
  - When: Tuesday, March 2, 2010 from 6:00pm – 9:00pm
  - Where: B Restaurant and Bar – Upper Terrace, Moscone Center North



# TCG Vision



# Mission Statement

The Trusted Computing Group (TCG) is a not-for-profit organization formed to develop, define and promote open, vendor-neutral, industry standards for trusted computing building blocks and software interfaces across multiple platforms.



# TCG Benefits



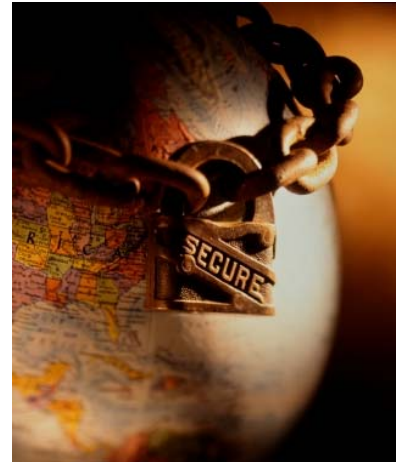
# Benefits

## Benefits

- **Trusted Computing creates a safer computing environment.**

- **Trusted Computing Benefits Include:**

- Protect Business Critical Data and Systems
- Secure Authentication and Strong Protection of User IDs
- Establish Strong Machine Identity and Integrity
- Ensure Regulatory Compliance with Hardware-Based Security
- Reduce Total Cost of Ownership Through "Built In" Protection



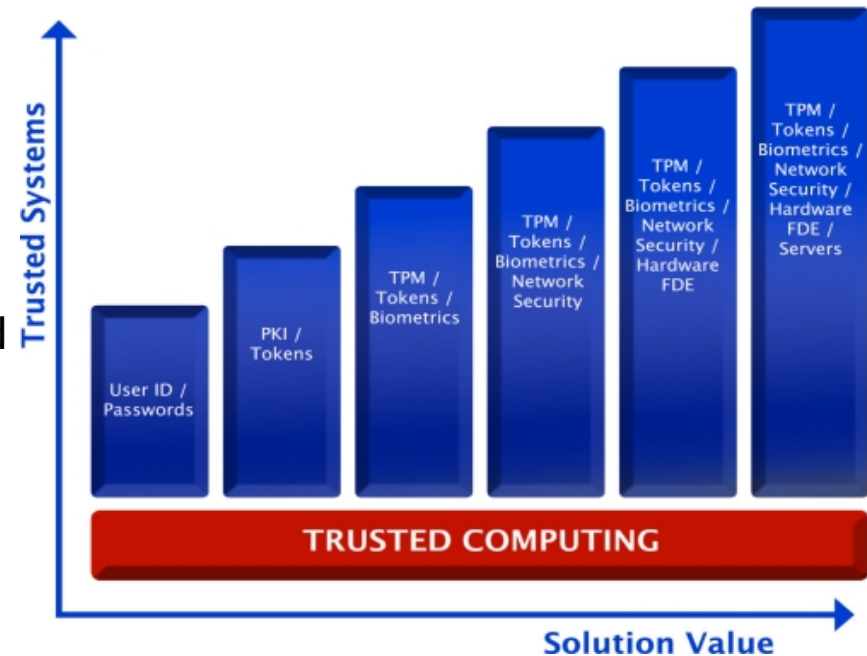
- **TCG Standards - Solving Today's Enterprise Security Challenges:**

- Authentication
- Data Protection
- Network Security
- Multiple Levels of Security Enabled
- Disaster Recovery

# Trusted Computing

## Trusted Computing

- Trusted Computing is a
  - Category of technology developed and promoted by the Trusted Computing Group.
- Trusted Computing
  - The industry's answer to growing security problems in the enterprise and is based in a hardware root of trust.
  - With Trusted Computing, the computer will behave in specific ways enforced by hardware and software
    - The owner of those systems enables these technologies.
- Trusted Computing technology will make computers safer, less prone to viruses and malware,
  - Trusted Computing provides computer systems to offer improved security and efficiency.



# Membership

## About TCG

- The Trusted Computing Group (TCG) is an international industry standards group. The TCG develops specifications amongst its members. Upon completion, the TCG publishes the specifications for use and implementation by the industry.
- The TCG publicizes the specifications and uses membership implementations as examples of the use of TCG Technology. The TCG is organized into a work group model whereby experts from each technology category can work together to develop the specifications. This fosters a neutral environment where competitors and collaborators can develop industry best capabilities that are vendor neutral and interoperable. TCG Incorporation and Benefits

## Trusted Computing Group Incorporation and Benefits

- The Trusted Computing Group (TCG) is incorporated as a not-for-profit industry standards organization focused on developing, defining, and promoting open standards for trusted computing that will benefit users. The organization's structure has been designed to enable broad participation, efficient management, and widespread adoption of the organization's specifications. This includes:
- Membership is open to a wide range of for-profit corporations, non-profit corporations, and other enterprises supportive of TCG's goals, with clearly defined benefits at different levels of membership
  - Reasonable and non-discriminatory (RAND) patent licensing policy between Members
  - Board, Committee, and Work Group structure with supermajority voting
  - Marketing Programs and a future whitelist program



# TCG Solutions



# Solution Focus – Market Demand

Trusted Computing solutions enable more secure computing environments through different applications for a range of industries without compromising functional integrity, privacy, or individual rights.

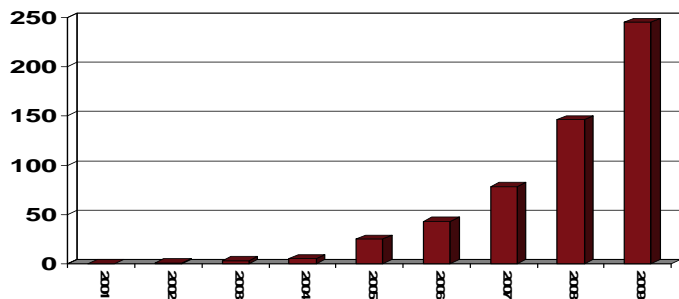


# Authentication

## Trusted Platform Module (TPM)

- Virtually every business laptop comes with an embedded security token.
  - The key differentiator:
    - TPMs uniquely support both user and machine authentication in one token
    - Ensuring only authorized users and authorized PCs are on the network.

*(In millions of units shipped)*



- Use the TPM for authentication to provide a first factor: "something you have".
- An additional factor can be added for security such as a PIN or password for "something you know".

- A TPM, can achieve a hardware level of security without the costs and hassles associated with deploying and managing smart cards or hardware tokens.

Forecast of PC Shipments with TPM Chips  
(source: IDC July 2005)

- A TPM securely can identify a user or machine and automatically integrates with the 802.1x authentication framework.



### Email

- Strengthen certificate-based email encryption with TPM key protection.
- Support for all X.509 certificate-based email encryption.

### Multi-Factor Authentication

### VPN Access

### Wireless Access

# Data Protection

Self-encrypting drive solutions, based on TCG specifications, enable integrated encryption and access control within the protected hardware of the drive.

- TCG's open standards provide multivendor interoperability.

## Self Encrypting Drive Benefits: (SED)

- **Better Performance**

- Encryption hardware, integrated into the drive controller
  - Allows the drive to operate at full data rate with no performance degradation

- **Stronger Security**

- Encryption always on - major compliance requirement
- Keys for encryption are generated in the drive and never leave the drive
- User authentication is performed by the drive before it will unlock, independent of the operating system

- **Easier to Use**

- Encryption is transparent to both users and software.

- **Lower Cost of Ownership**

- No need for complex infrastructure to manage encryption keys
- Main processor cycles not used for encryption
- No modifications to OS, applications or tools
- Crypto-erase provides instant repurposing / decommissioning



# Network Security

TCG's Trusted Network Connect (TNC) architecture is the open framework, which is supported by many switches, VPNs, applications.

## TNC Benefits:

### •Guest Access

- TNC specifications enable vendors to craft effective systems that enable guest access, without threat to the host network.

### •User Authentication

- TNC supports authentication of users to further protect the network and to better manage who is using the network and what is happening.

### •Endpoint Integrity

- TNC provides a common way to health-check clients as they attach to the network. Based on the user's own policies, these clients can be blocked from the network, quarantined, or sent to a separate network for remediation.
  - Prevent the spread of rootkits, viruses and malware.

### •Clientless Endpoints

- Non-PC devices such as IP phones, cameras, physical security equipment and printers connect to the network and must be assessed for threats and vulnerabilities.
  - TNC's specifications provide a framework to assess, manage and secure the non-traditional or clientless end-points.

### •Decision-making

- TNC's IF-MAP specifications provide a common way for security tools to communicate, resulting in data that can be shared and used at and during the network admission processes.



# Vertical Markets

# Verticals

Three vertical market markets have been identified that require the following solutions, based on TCG Technologies

- Data Protection
- Access Control
- Audit and Conformance

*Other markets verticals have been deploying TCG technologies as well, following these vertical market requirements.*

## Financial Services

Many Governments have recognized that hardware security is far superior to software-based security and have developed standards around smart cards and hardware tokens for authentication and other key security functions within the government networks.

- Governments have acknowledged TCG's technology and Trusted Platforms as a security solution by specifying them in procurement practices.



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# Thank you

For more information, case study's, social media access,  
blog, membership and developer information

<http://www.trustedcomputinggroup.org/>

