wave®

Leaders in Trusted Computing Software Solutions

Trusted Computing Group: The Impact of Adding Hardware Security to Every PC

Steven Sprague, Wave Systems Corp, CEO

www.wave.com

We know the challenge

Keep your companies name out of the news

Protect suppliers data

Protect consumers data and privacy

Protect transactions

And give me access to everything everywhere all the time

Information Security Driving Solutions

Sarbanes-Oxley
- Improving Transparency and Accountability of Business Process
  - Organizations must implement suitable internal controls
  - Identify the framework
  - Assess effectiveness

Gram-Leach-Bliley (GLB)
- Financial Services Protection of Customer information
  - Security and confidentiality of data
  - Mitigation of risk
  - Unauthorized access to data

HIPAA
- Protection of Patient Records while Reducing Fraud and Abuse of Insurance
  - Electronic and physical safeguards on data
    - Hazards (Natural, Environmental and Intrusion)

ORGANIZATIONS ARE LOOKING FOR SYSTEMS TO AUTOMATE REGULATORY COMPLIANCE

- **Access Rights**
- **Information Protection**
- **Audit-ability**

It's not about the market for security

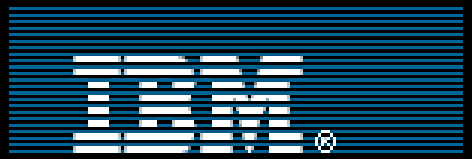
- It's about
  - Reducing the cost of business
  - Enabling lower cost transactions
  - Improving productivity
  - Building seamless business networks
  - Stronger customer relations

Trust Enabled by Security is a Platform for business

So What is the Industry DOING ABOUT IT?

- 106 + Companies have joined the Trusted Computing Group
- Microsoft, Dell, Intel, AMD, IBM, HP and others are "all" fully supporting implementations
- The PC Manufacturers are SHIPPING and have shipped Millions of units
- The Industry Platform for Trusted Relationships, Trusted Transactions and Trusted applications is HERE.
- The big questions is how will the world change when all PCs are trusted PCs

TCG Board of Directors



TCG Members

Promoters

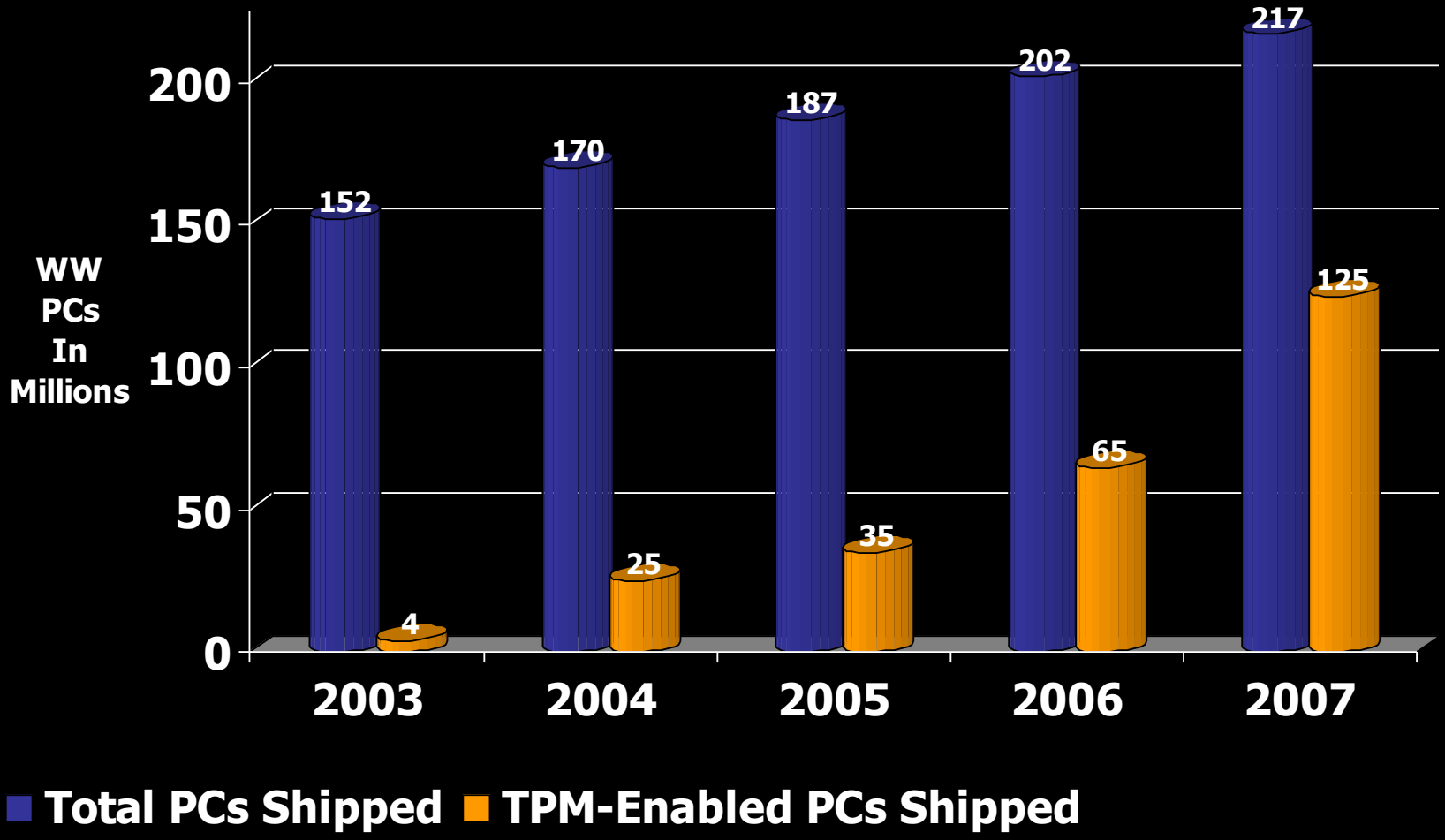
- AMD
- Hewlett-Packard
- IBM
- Intel Corporation
- Microsoft
- Sony Corporation
- Sun Microsystems, Inc.

Contributors

- Agere Systems
- ARM
- ATI Technologies Inc.
- Atmel
- AuthenTec, Inc.
- AVAYA
- Broadcom Corporation
- Certicom Corp.
- Comodo
- Dell, Inc.
- Endforce, Inc.
- Ericsson Mobile
- Extreme Networks
- France Telecom Group
- Freescale Semiconductor
- Fujitsu Limited
- Fujitsu Siemens Computers
- Funk Software, Inc.
- Gemplus
- Giesecke & Devrient
- Hitachi, Ltd.
- Infineon
- InfoExpress, Inc.
- Interdigital Communications
- iPass
- Juniper Networks
- Lenovo Holdings Limited
- Lexmark International
- M-Systems Flash Disk Pioneers
- Meetinghouse Data Communications
- Motorola Inc.
- National Semiconductor
- nCipher
- Network Associates
- Nokia
- NTRU Cryptosystems, Inc.
- NVIDIA
- OSA Technologies, Inc
- Philips
- Phoenix
- Pointsec Mobile Techno
- Renesas Technology Corp.
- RSA Security, Inc.
- SafeNet, Inc.
- Samsung Electronics Co.
- SCM Microsystems, Inc.
- Seagate Technology
- SignaCert, Inc.
- Sinosun Technology Co.
- Standard Microsystems Corp
- STMicroelectronics
- Sygate Technologies, Inc.
- Symantec
- Symbian Ltd
- Synaptics Inc.
- Texas Instruments
- Transmeta Corporation
- Trend Micro
- Utimaco Safeware AG
- VeriSign, Inc.
- Vernier Networks
- VIA Technologies, Inc.
- Vodafone Group
- Wave Systems
- Zone Labs, Inc.
- American Megatrends, Inc.
- Apere, Inc
- BigFix, Inc.
- Citrix Systems, Inc
- Credant Technologies
- Enterasys Networks
- Foundry Networks Inc.
- Foundstone, Inc.
- Gateway
- Indus Techno Research Inst
- Latis Networks, Inc.
- Lockdown Networks
- MCI
- Nevis Networks, USA
- PC Guardian Technologies
- Sana Security
- Senforce Technologies, Inc
- Silicon Integrated Systems Corp.
- Silicon Storage Technology, Inc.
- Softex, Inc.
- Telemidic Co. Ltd.
- Toshiba Corporation
- TriCipher, Inc.
- ULi Electronics Inc.

106 members and growing every month!

TPM Enabled PC's Shipped Growing Dramatically (Source: IDC)



Introducing the industry standard

- Enables Strong authentication for all PCs
- Enables Strong data protection for every computer
- Provides Protection for the users personal information and credentials
- Provides a foundation of trust for all antivirus, anti-phishing and other security applications
- Enables the power of trusted network connections
- Extends to mobile, network and peripheral products

Product Implementations

TPM Vendors:

Atmel*
Broadcom*
Infineon*
Winbond*
Sinosun*
STMicroelectronics*

TCG Solutions:

M-Systems*
NTRU*
Softex* (Omni Pass and Theft Guard)
Utimaco* (SafeGuard)
Verisign* (Personal Trust Agent)
Wave Systems* (Embassy Trust Suites)

TCG Enabled Systems:

Dell (Latitude, Optiplex)
Fujitsu (LifeBook Notebook & Desktop systems)
HP* (HP Protect Tools)
IBM* (Embedded Systems Solution)
Intel*(Intel® Desktop Board D865GRH)
Toshiba

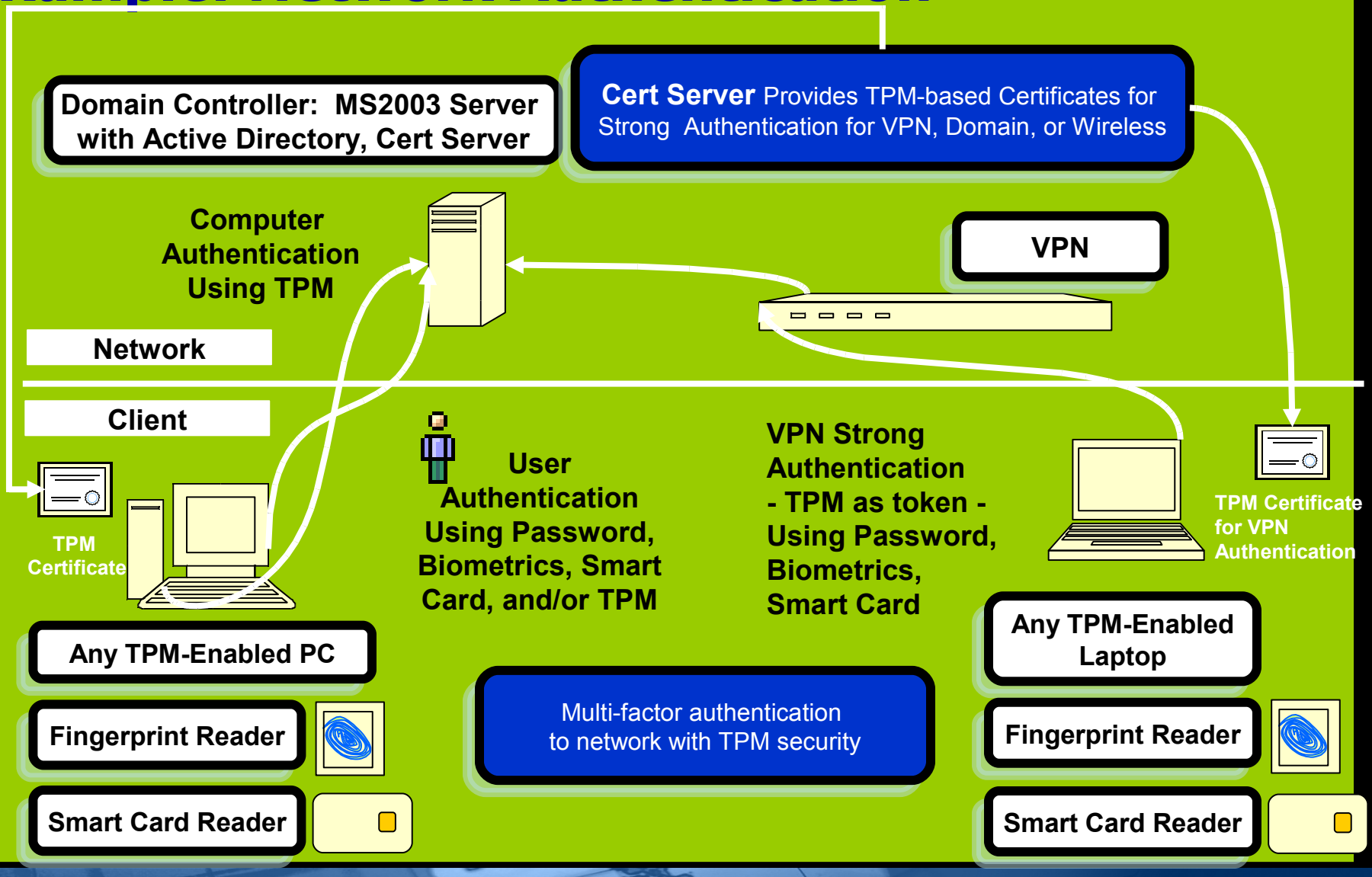
WAVE Security Solutions

Wave's trusted computing solutions consist of a suite of client applications and servers infrastructure for enterprise

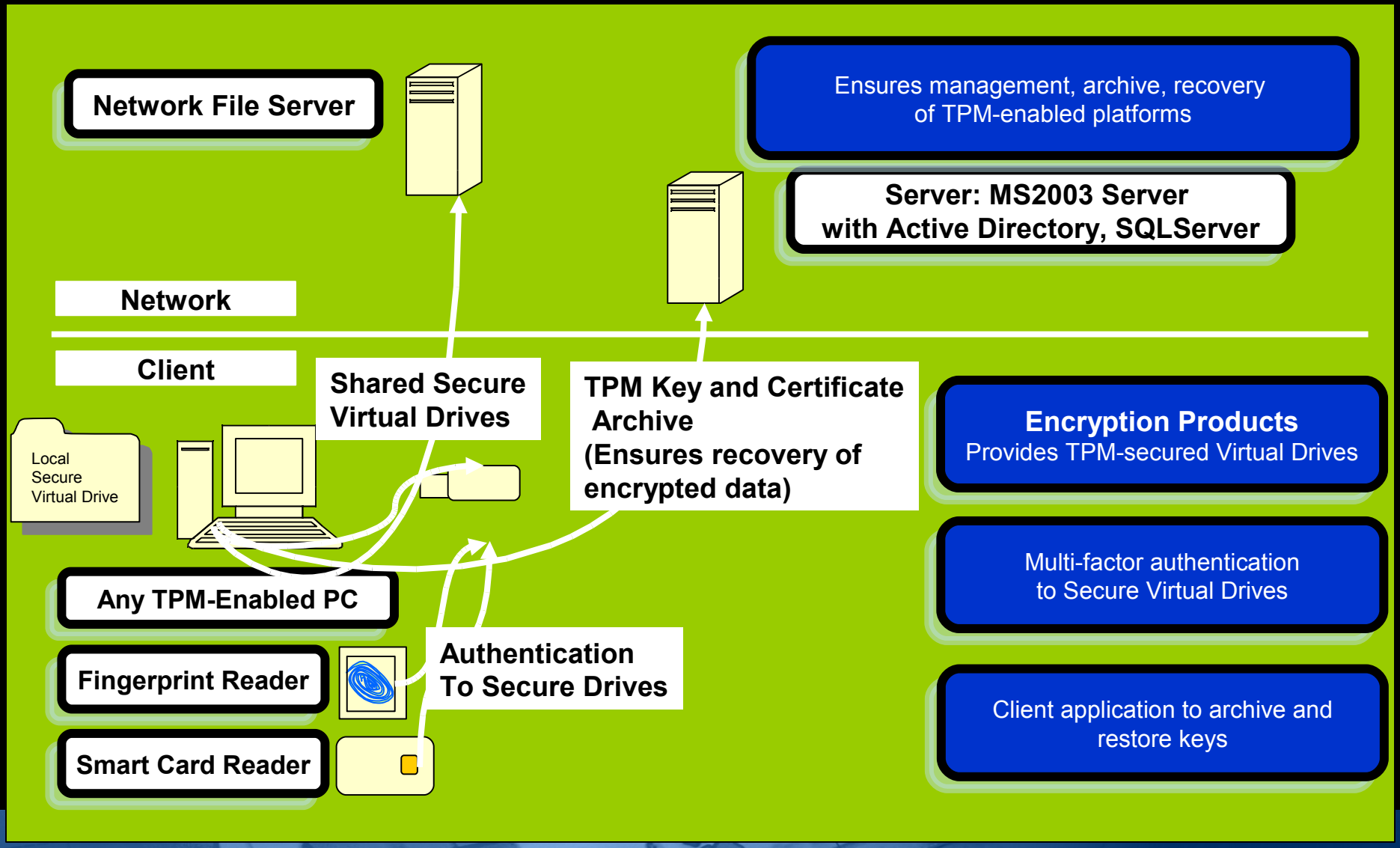
TCG-compliant software solutions for TPM-enabled PCs

- TCG-Enabled CSP
- Automated password management for convenience and protection
- Hardened data protection to meet the latest enterprise requirements
- Multifactor authentication to Windows and secure applications
- Strong authentication for remote access through Virtual Private Networks
- Remote TPM keys and certificates management and recovery

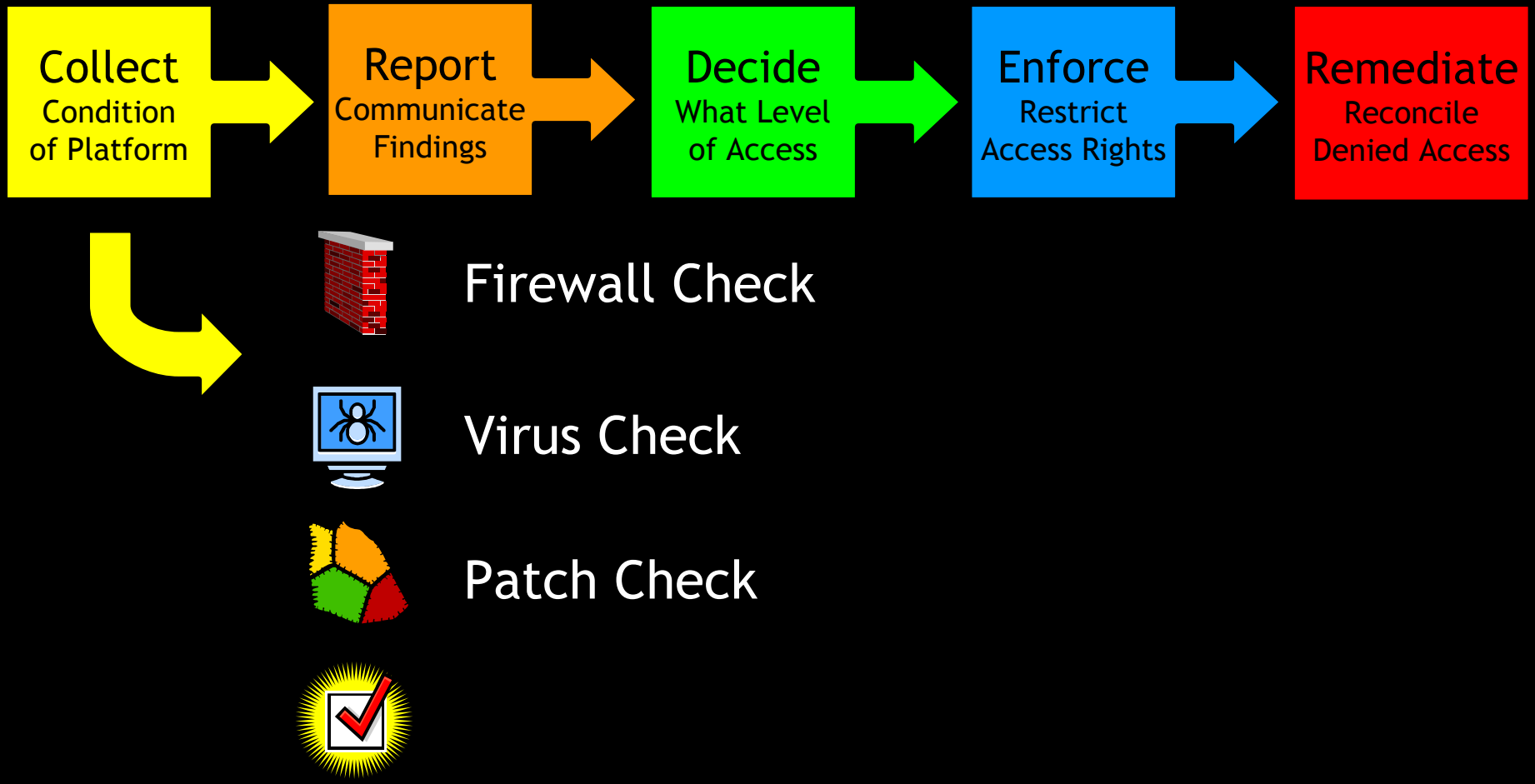
Example: Network Authentication



Example: Data Protection and Key Management



Network Access Control

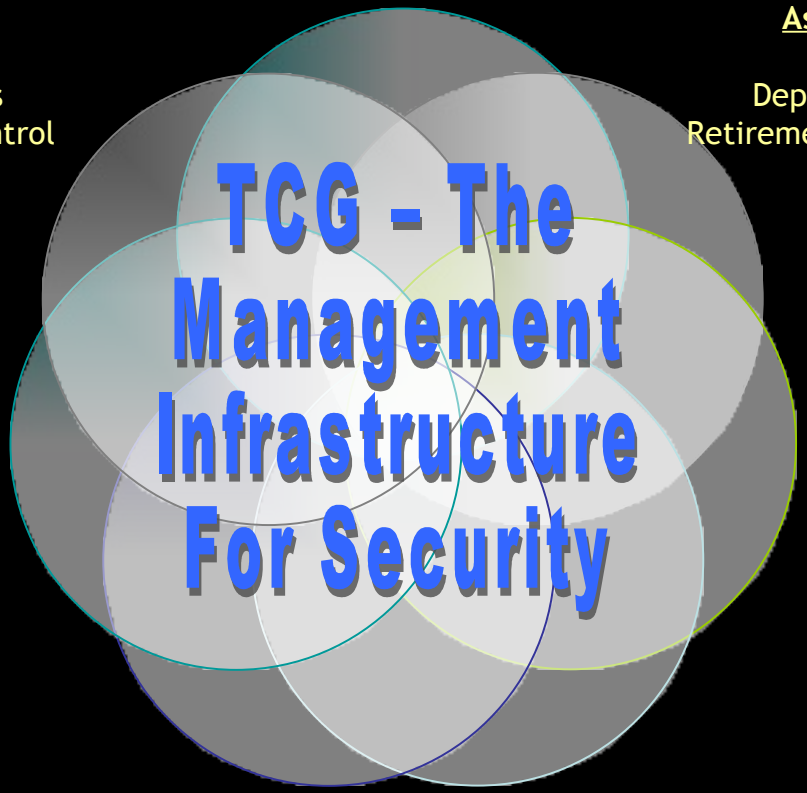


Infrastructure Building Blocks

Integrity Measurement
Devices, Apps, People
State of Platforms
Credentials

Network Authentication
Users, Platforms
Network Access Control

Asset Management and Tracking
Deployment, Operation
Retirement, Lost/Stolen Devices



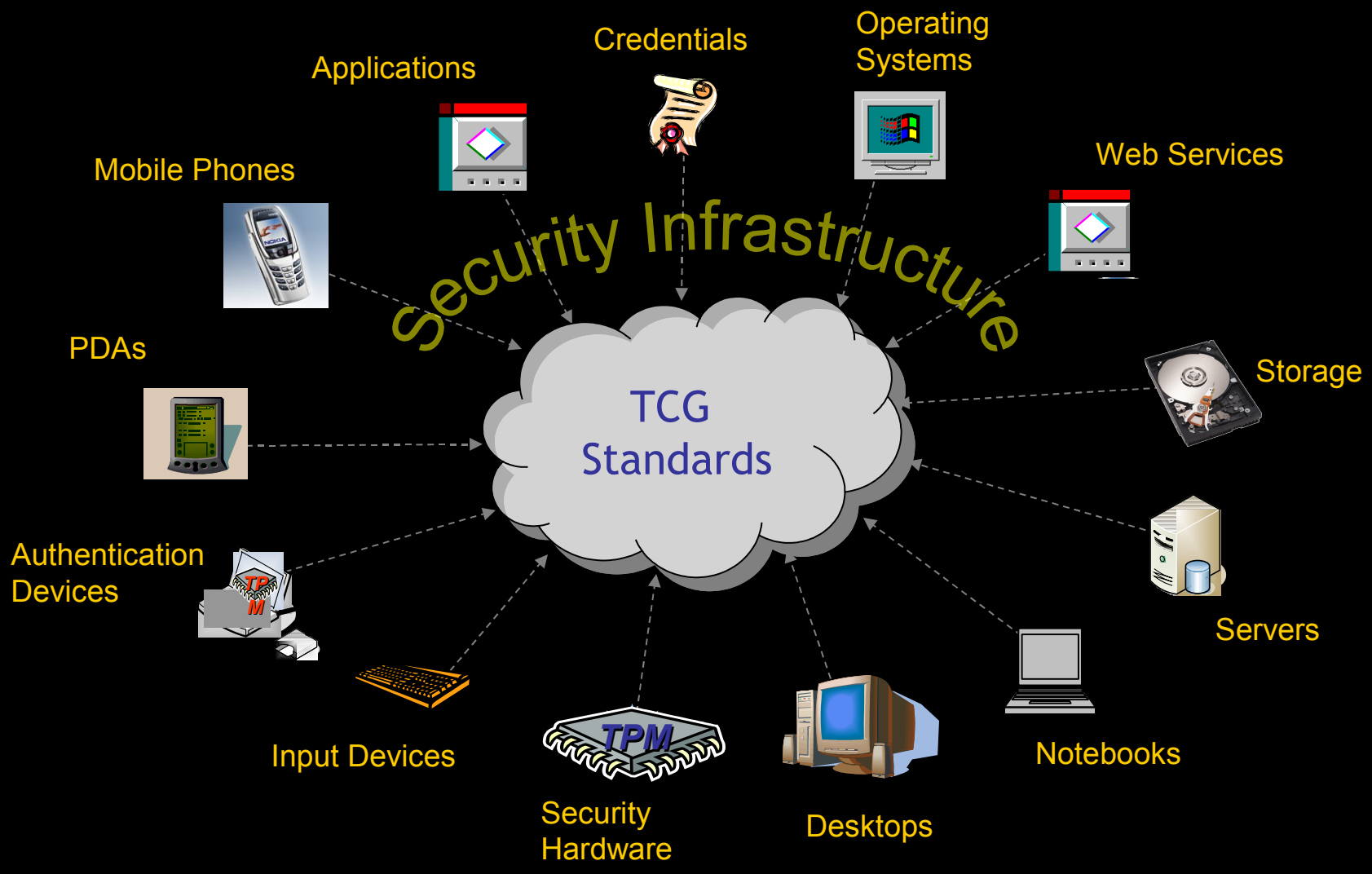
Remote Management
Setup
Issues Management

Security Policies
IT Management and Control

Data Migration and Synchronization
Between Trusted Devices

Key Management
Backup, Disaster Recovery
Device Replacement

The "BIG" Picture



Impacting the Existing network

- 802.1X
- Identity Management
- Security and IT Capabilities
- Automated Password Management
- Business Continuity
- Client-side Biometrics
- Quarantine & Containment
- Vulnerability Management
- Encryption (AES)
- Security Audit Capabilities

Summary

- Trusted computing will change the way all internet business is done.
- An industry standard for security has emerged
- Trusted Computing is a required component for any security architecture
- Trusted Computing will help reduce the complexity of deploying solutions and Improve iteroperability

Conclusion

Make sure your next computer is a trusted computer