

Security and Privacy: Do we have the right tools?

Detlef Eckert
detlefe@microsoft.com

Internet has changed personal and professional life

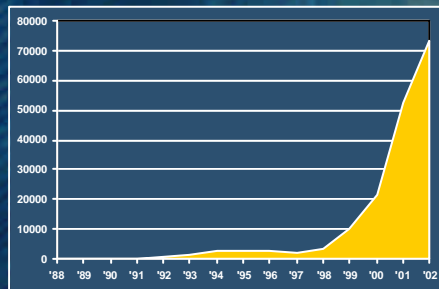
- ◆ Began on PCs, but now across many devices
- ◆ Enhancements have been what always mattered:
 - ❖ Productivity
 - ❖ Communication
 - ❖ Entertainment

...but adoption will stall unless people truly trust computer systems...



... but attacks are increasing

- ◆ CERT/CC incident statistics 1988 through 2002
- ◆ *Incident*: single security issue grouping together all impacts of that that issue
- ◆ *Issue*: disruption, DOS, loss of data, misuse, damage, loss of confidentiality



Source: http://www.cert.org/stats/cert_stats.htm

Why is it so hard to solve this problem?

- ◆ PC initially not designed for the Internet
- ◆ Internet initially designed to share information not to protect information
- ◆ Legacy problem of an installed computer and software base makes design change difficult
- ◆ One attempt is “Trusted Computing Group” + Microsoft “New Generation Secure Computing Base”

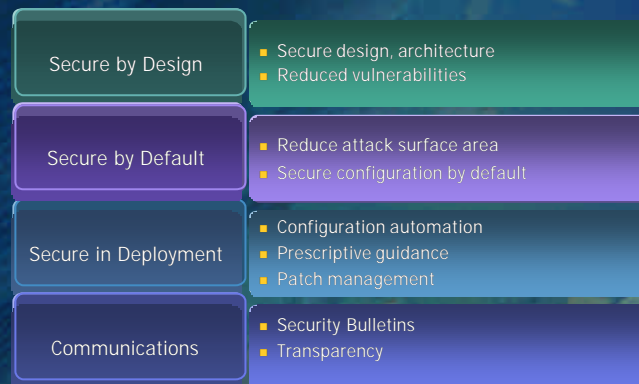
The Attacker

- ◆ Insider problem
- ◆ Hackers carry out “remote” crime, difficult to find and prosecute (the Internet is global)
- ◆ Tools allow even less skilled hackers to launch a serious attack
- ◆ Sophisticated attacks difficult to identify
- ◆ Security associated with costs
- ◆ Not always an attacker, but an incident and human failure

Tools?

- ◆ There is no silver bullet to security. Solutions involve technology, processes, and people.
- ◆ Different solutions to different people with different requirements
- ◆ The market is the best place to provide the appropriate tools
- ◆ Microsoft’s security concept: Secure by Design, by Default, in Deployment

SD³+C: Security Framework



Privacy an increasing challenge

- ◆ The ability of individuals to control data about themselves
- ◆ The right of individuals to be left alone
- ◆ The need to protect private data against unauthorised access
- ◆ The potential conflict between public security and private data protection

Platform for Privacy Preferences (P3P)

- ◆ Is P3P a solution to online privacy?
 - ❖ NO! P3P complements laws, PETs, seal programs, etc.
- ◆ P3P has weaknesses
 - ❖ complexity, no enforcement mechanism
 - ❖ default settings may not reflect local law/minimum protections
 - ❖ ambiguous legal status (P3P policy vs. full privacy statement)
- ◆ P3P has strengths
 - ❖ transparency – helps users discriminate privacy policies
- ◆ Deploying P3P on your website
 - ❖ <http://msdn.microsoft.com/workshop/security/privacy/overview/createprivacypolicy.asp>

PETs in context

- ◆ Are PETs *the* solution to online privacy?
 - ❖ NO! PETs supplement existing law and policy
- ◆ PETs are not sufficient for achieving privacy rights, but they may be necessary for optimal enforcement
 - ❖ Millions of web sites
 - ❖ Enforcement agencies not staffed to monitor all sites or conduct audits of even a small fraction
 - ❖ Third party audits are very costly and may be overkill for small companies
 - ❖ PETs can assist legal compliance in a variety of ways

Turning the Tide



Microsoft[®]

© 2001 Microsoft Corporation. All rights reserved.