Management Challenges

Why are there problems?

"A computer program does what you tell it to do, not what you want it to do." — *Greer's Third Law.*
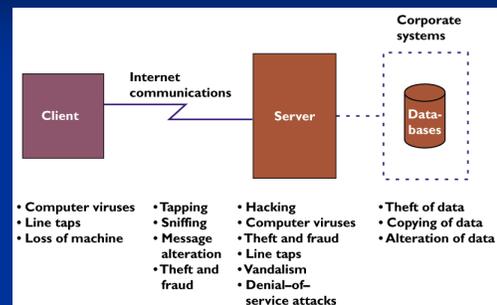
3 Biggest Software Lies:
- The program's fully tested and bug-free.
- We're working on the documentation.
- Of course we can modify it."

Ethical Issues

- Intellectual Property Rights (Pirating)
- Customer Privacy
- Employee Privacy
- Workplace Safety

In groups make company guidelines for these issues.

Hacking

Corporate systems

Client — Internet communications — Server --- Data-bases

- Computer viruses
- Line taps
- Loss of machine

- Tapping
- Sniffing
- Message alteration
- Theft and fraud

- Hacking
- Computer viruses
- Theft and fraud
- Line taps
- Vandalism
- Denial–of–service attacks

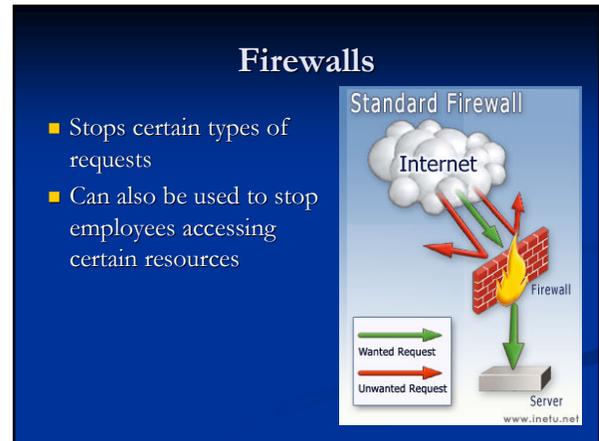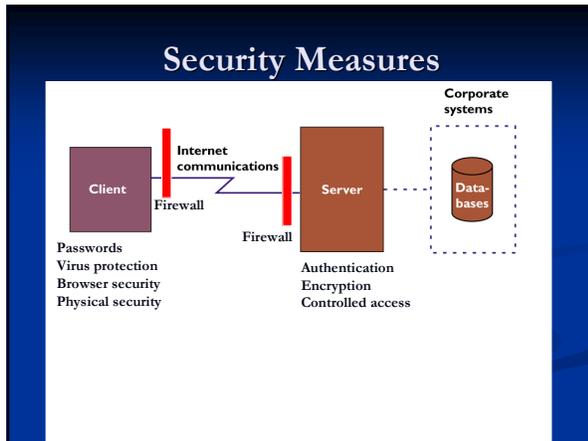- Theft of data
- Copying of data
- Alteration of data

Unauthorized Resource Use

- Playing solitaire
- General email abuses
- Plagiarism / Pirating
- Newsgroup postings
- Transmission of confidential data
- Hacking
- Non-work related downloads
- Leisure use of the Internet
- Moonlighting

Stolen Data

- Even if the computer has been burned, flooded or thrown out of a plane. The data may still not be destroyed…
- You may not be able to get it, but a forensics lab can…

Security Measures

Corporate systems

Internet communications

Client

Firewall

Server

Firewall

Data-bases

Passwords
Virus protection
Browser security
Physical security

Authentication
Encryption
Controlled access

Firewalls

- Stops certain types of requests
- Can also be used to stop employees accessing certain resources

Employee monitoring

- Use a Database for emails (Such as Outlook Exchange / Lotus Notes)
- Allow Personal web mail (Hotmail / Yahoo)
- Selective access to confidential data
- Monitor Data access
- Effective contracts & training

Other Security Measures

- Backup Files
- Biometric security / Smartcard access
- Don't network sensitive PCs
- Don't record sensitive data on PC.
- Put a tracker on PCs

Extreme Strategies…

- Destroy all files at 5pm every Friday.
- Put a self destruct system into the PC.
- Search people leaving the building
- Allow everybody in the company to search any email…

What's a Mouse?

- Don't forget that people have to operate Computers
- People may resist changes
- People are suspicious of technology

In groups decide what other problems there might be and how you can solve them…

Strategies to Manage People

- Train them / Fire them
- Reassure them / Threaten them
- Add specialist IT personnel (or a secretary)
- Make the software easy to use.
  (Easier to use = harder to program)

Strategies to deal with illiterate users

- Backup files for employees
- Limit access to PCs & printers (Windows XP management functions)
- Design software with additional error checking & workflow.
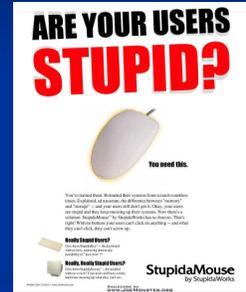
Legal issues

- Libel
- SPAM – illegal in some countries
- Copyright/trademark infringement & IP violations
- Patenting process & defence

Questions & Answers