



# IT-Security

Andreas Köster

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# Content

- Introduction
- IT in Business Communications (example VoIP)
- Threats to IT-Systems
  - Virus
  - Worm
  - Trojan horse
- Security in five steps

# „What do I have to do with it?“

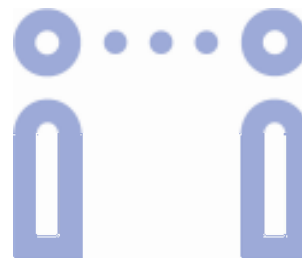
- Time to infection of a naked PC: 20 minutes<sup>1</sup>
- Worm/Netsky. Sends your e-mails to random e-mail addresses
- Spam could be send out by your computer

1: Sophos Security Report , 01. july 2005

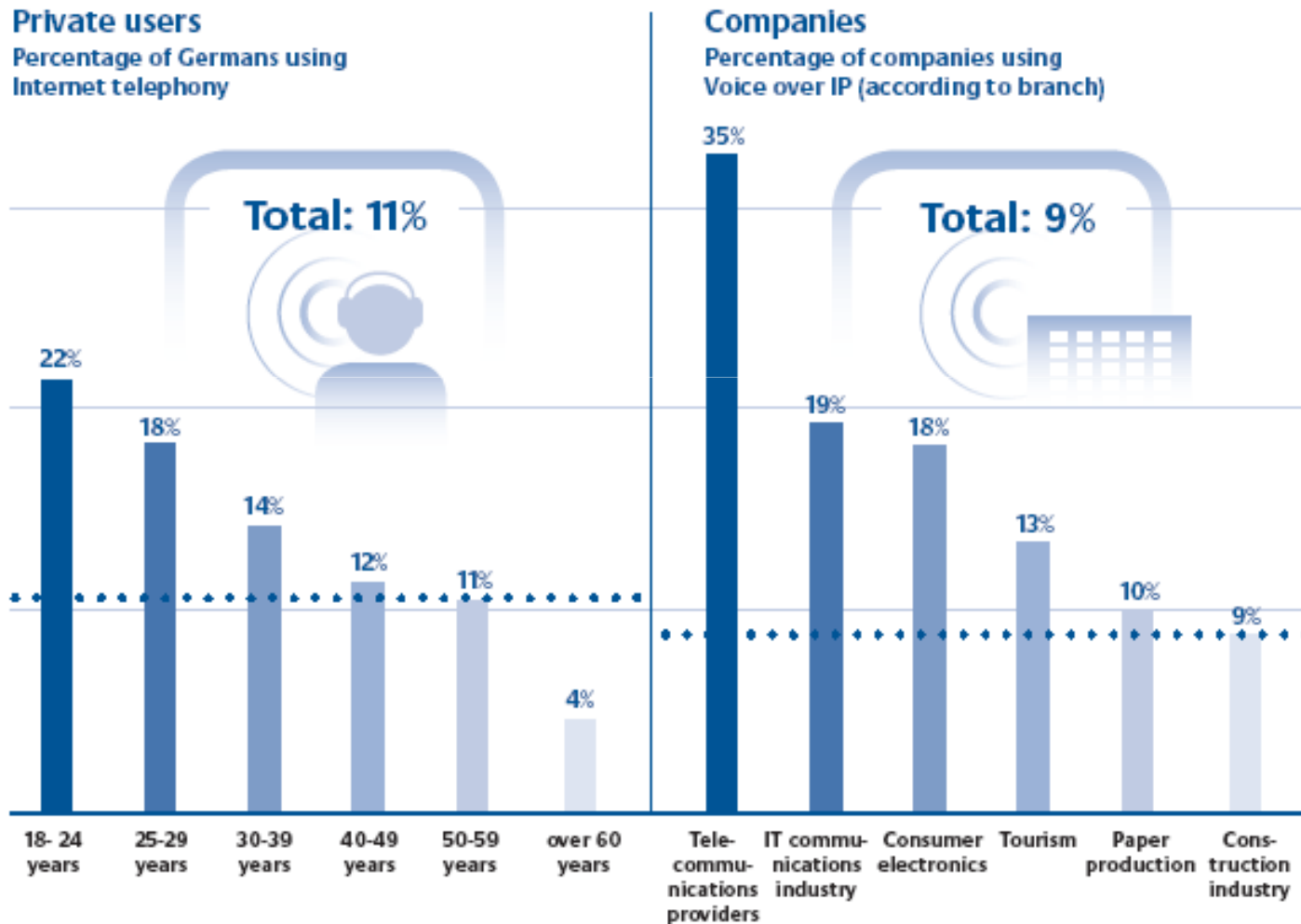
# IT in Business Communications

- information society
- innovation and competitiveness of a society
- more than 61% of the private households have internet access<sup>1</sup>
- 97% of the companies in the EU work with computers and 93% have internet access<sup>2</sup>
- E-Government, online-banking, Voice-over-IP etc.

1,2: Statistisches Bundesamt, IKT in Deutschland, Ausgabe 2007



# Voice-over-Internet Protocoll (VoIP)



# Threats to IT Systems: Virus

- infects unseen (internet, removable mediums)
- reproduces itself (attacks the whole system)
- causes malfunctions (by damage routines)
  - harmless/joke virus
  - unmeant damage
  - data destruction
  - hardware destruction

Malware occurrence 2006

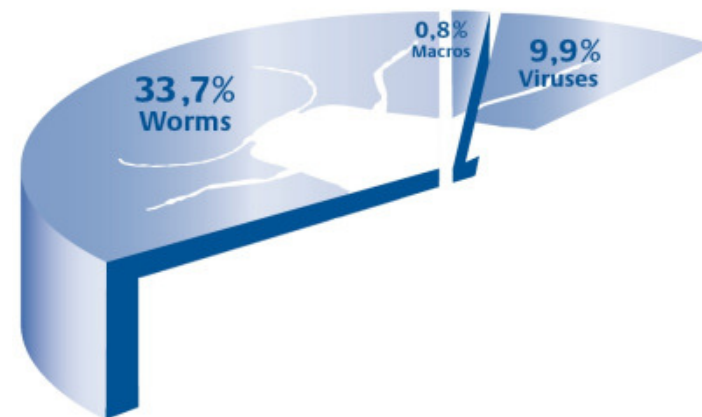


# Threats to IT Systems: Worm

- actively crawls through the network
- analogue damage routines like viruses
- much quicker

- „W32.Blaster“ aka „Lovesan“
  - 9.5 mio. computer infected<sup>1</sup>
  - economic damage:  
several millions of US \$<sup>2</sup>

Malware occurrence 2006

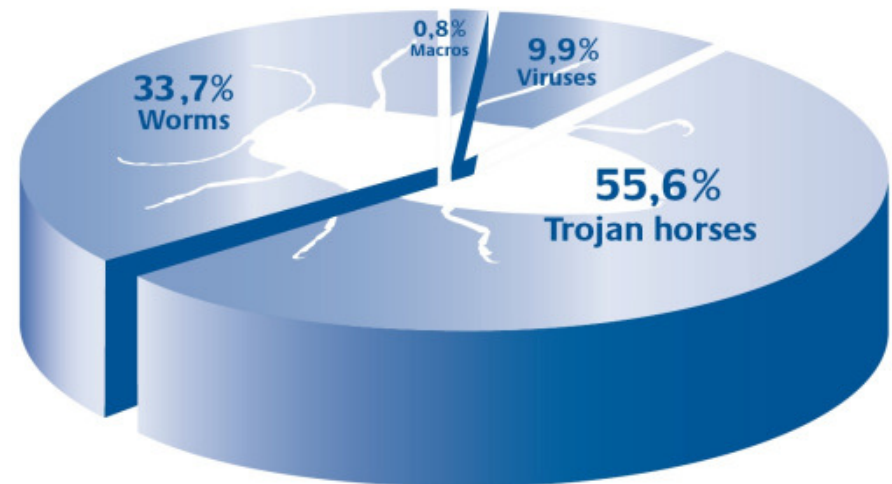


1,2: approximation by Microsoft

# Threats to IT Systems: Trojan horse

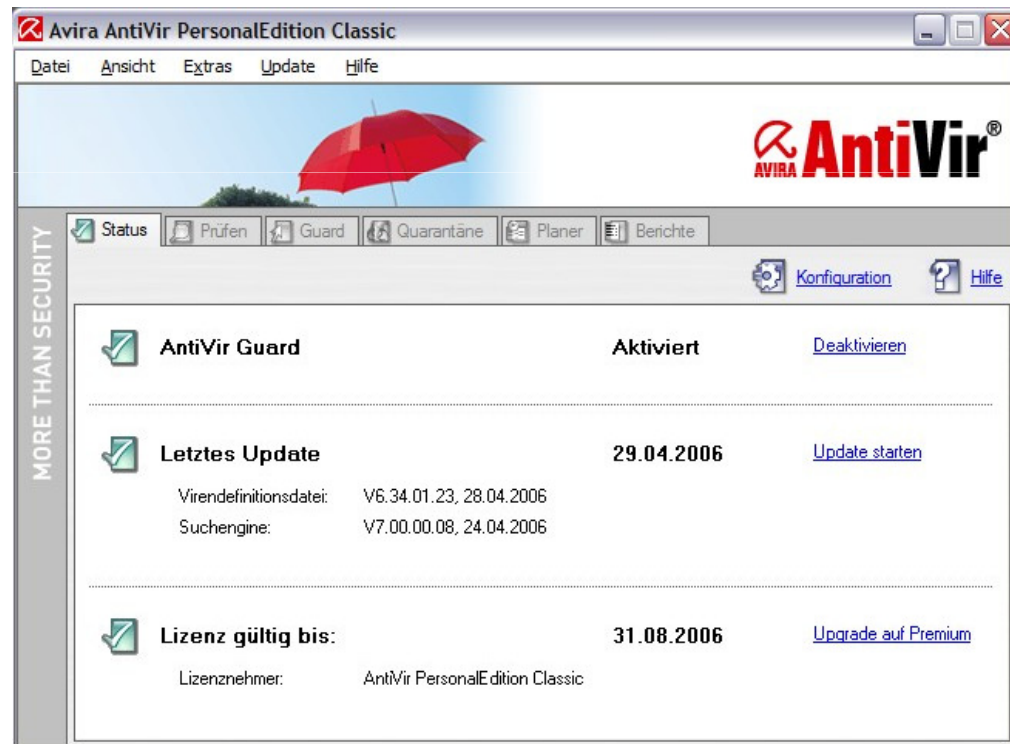
- “useful application”
  - “virus-doctor”
  - “download manager”
- secretly execute disruptive functions
  - spy on data
  - keylogger
  - remote control

Malware occurrence 2006



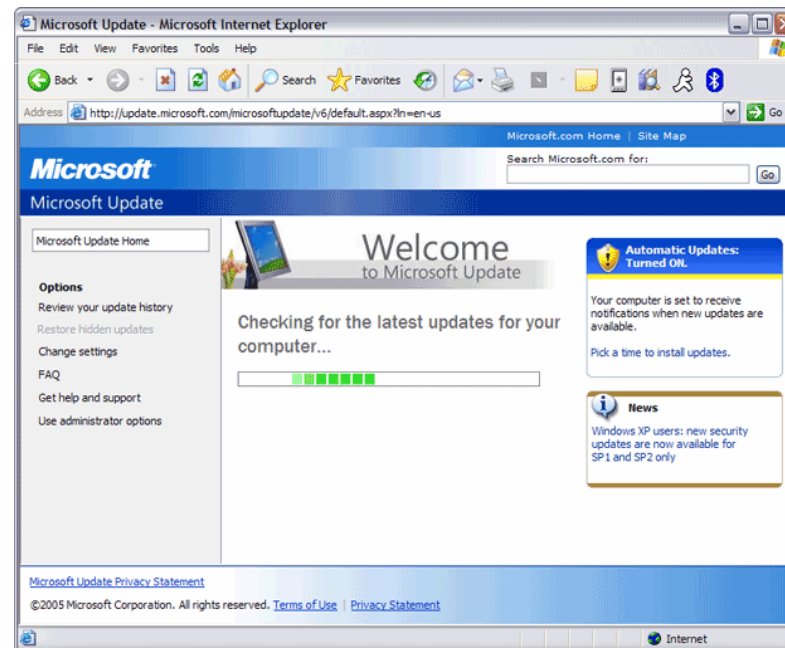
# Security step 1/5: antivirus software

- install an antivirus software
- for example „AntiVir Personal“



# Security step 2/5: Microsoft Updates

- Install all security updates
- <http://update.microsoft.com>
- activate the automatic updates



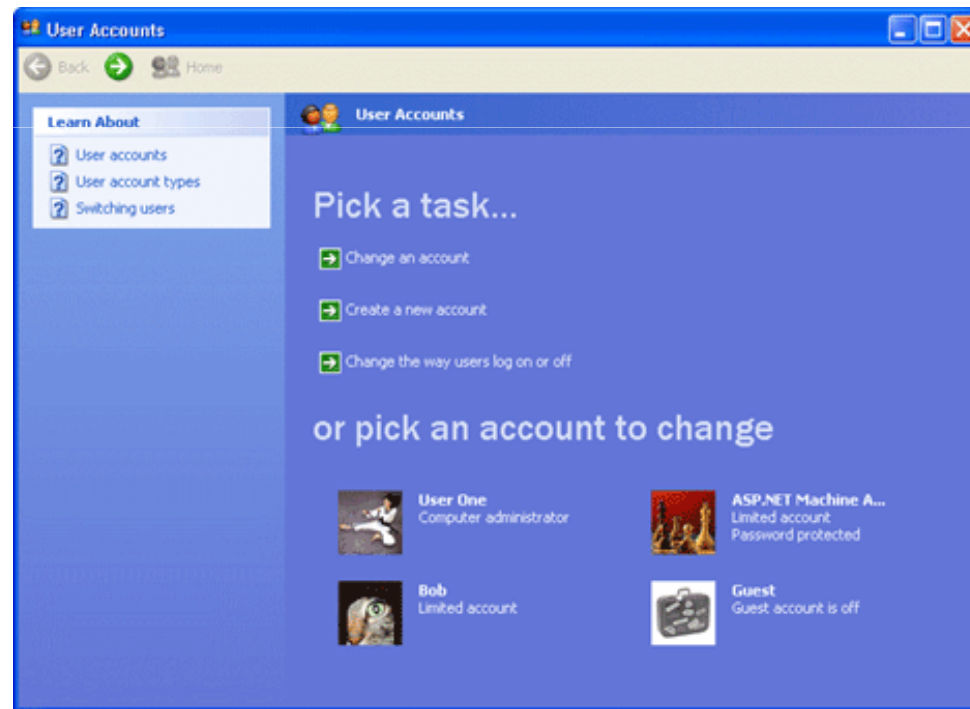
# Security step 3/5: firewall

- Servicepack 3 for Windows
- activate the Windows firewall in the Security Center



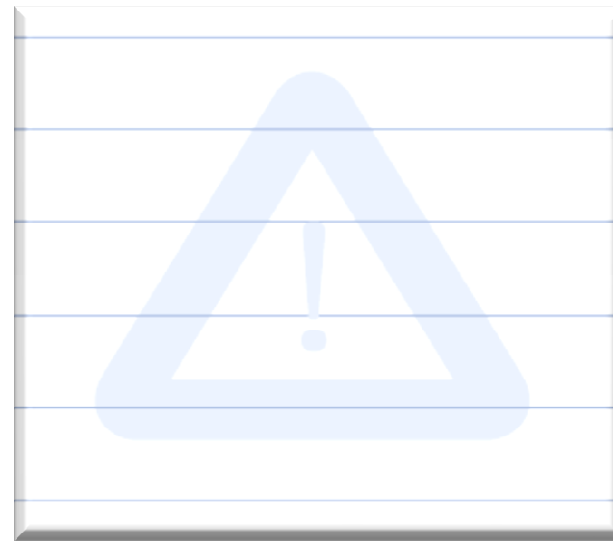
# Security step 4/5: user rights

- viruses have the same rights like the user
- do not surf as the administrator!



## Security step 5/5: code of behaviour

- do not open e-mails with unknown sender
- keep access information secret
- strong passwords (NOT „start123“)
- make backups!



The background of the slide is a light blue gradient. In the upper left, there is a white grid pattern of small squares that recedes into the distance. In the lower right, there are white circuit traces or lines that also recede into the distance, creating a sense of depth and technology.

**Thank you for your attention.**