

100% uptime or we apologize

Ange Optimization

**Problems and solutions to outsourcing
hosting services**

Ole/Hans

- Hosting customers since 1996
 - Rented the connection to the office
 - Owned the server
 - Rented the server
- Have experienced most of the common problems
 - And some of the extraordinary problems

We are sorry!

- But otherwise go fuck yourself
 - Because the ISP earns peanuts



We are really sorry!

- If you pay extra
- We pay the fine
 - Because the ISP earns a little more than peanuts
 - But is that good enough?

Hardware failure

- Disk problems
 - 1998: Pi-Web loses a disk in California
- Power supply unit
 - 2006: Pi-Web loses a power supply
- Capacitors
 - 2002: Neurotech's server's explodes a capacitor
- RAM errors
 - 2003: Pi-Web has intermittent errors
- Air condition
 - 2010: Netgroup's hosting center's A/C fails



Hardware example

- Internexion misses power from DONG
 - Transformer station on fire

DONG
energy

Networking errors

- Broken cables
 - 2009: Fullrate
- Routing errors
 - 2010: Fabit is reachable by some of the internet



Networking example

- 2008: Fullrate down several days
- 2009: Stofa's cable in Horsens broken by digging
- 2008: TDC loses connectivity in Roskilde because of digging



Power interruption

- Transformer fire
- Power plant fails



Power interruption example

- 2003: Power black out of Zealand and Southern Sweden (Oskarshamn Nuclear Power Plant)

– UPS and diesel generator does not matter:
DIX is down



- 2003: Northeast American blackout



Broadcom



- 2009: 2 x Disconnection for several hours
- Contacting Broadcom is impossible: They use VoIP
- Missing information
- Personal connections are not enough

Theft at ISP

- 2009: JP/Politiken (major Danish newspapers) almost did not print
 - Nianet (their ISP) had their core router stolen – and their spare router



Angry hosting center

- You have pissed off the hosting center for some reason
- The hosting center disconnects you

Netgroup and Jaynet

- 2007: Netgroup withholds servers. A customer's customer (Piratgruppen.org) is allowed to collect their data

netgroup.

- 2006: Jaynet withholds servers against court order – repeatedly
- MMManager is one of the customers



Verinet

- 2007: Verinet disconnects MMManager's servers because Verinet is connected via Jaynet

The Verinet logo is displayed in a light green, lowercase, sans-serif font. The word "verinet" is followed by a registered trademark symbol (®). The logo is centered within a white rectangular box.

Police confiscates server

- 2002: Catpipe (ulydighed.dk)
 - Court order – overturned later
- 2009: Myupload x 2 illegal content
 - Returned after a few days

POLITI



Government initiated take down of server

- 2009: Serverloft.eu takes down Pi-Webs servers because of controversial material



Solutions

Two office connections

- Solves: Networking errors
- Avoid human productivity loss

Wireless internet - client

- Solves: Networking errors, Broken cables
 - Wimax for the office
- Can be implemented for home office as well
 - 3G mobile networks

Two hosting centers

- Solves: Hardware failure, Transformer fire
- May solve: theft of core routers

Two hosting companies

- Solves: Hardware failure, transformer fire, theft of core routers, angry hosting company, Broadcom
- Virtual machines may make the switch over easier
- When choosing hosting companies look for service notifications
 - If zero notifications: stay away

Two electricity networks

- Solves: hardware errors, power plant failures, transformer fire

Two countries

- Solves: Police confiscates server,
Government initiated take down of server,
Power interruption, Hardware failure,
Networking errors

Two, Two, Two

- Two hosting companies
- Two countries
- Two electricity network
- Solves: Police confiscates server, Government initiated take down of server, power interruption, hardware failure, networking errors, power plant failures, hardware failure, transformer fire, theft of core routers, angry hosting company, Broadcom

Questions?

